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EVERY MAN
HIS OWN
Horse, Cattle, and Sheep
DOCTOR;

OR
A PRACTICAL TREATISE

ON THE DISEASES OF

Horses, Horned Cattle, and Sheep;

Together with the most simple and effectual

METHOD OF CURING EACH DISORDER,

THROUGHOUT ALL ITS VARIOUS STAGES.

TO WHICH IS ADDED,

AN APPENDIX,

INCLUDING THE AUTHOR'S PUBLIC MEDICINES, WITH
DIRECTIONS FOR USE.

And a Collection of choice Recipes for Families, &c.

BY ROBERT PEARSON,

LATE CHEMIST AND DRUGGIST, MELTON-MOWBRAY,
LEICESTERSHIRE.

LEICESTER:

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INTRODUCTION.

THE following Treatise on the DISEASES OF HORSES, NEAT CATTLE, AND SHEEP, is not the production of a few years study, but the result of about thirty years practice; and the author's motives for publishing this Treatise on the disorders incident to these valuable animals, are as follow;

First, To gratify and profit a number of Gentlemen Farmers and Graziers, &c. in the neighbourhood of Melton Mow-

bray, who have for a number of years been frequently soliciting him to the performance of this work.

Secondly, He believes it will be of general use, for if strict attention be paid to the rules laid down in this Treatise, any person will be able to understand the disorder; and by carefully applying such Recipes as are prescribed, with good drugs, will be enabled to effect a cure, in the most obstinate cases.

It is necessary to observe that much depends upon having the drugs genuine, as well as adhering to the various modes herein mentioned for extracting or retaining their virtues, as without this care the most valuable Recipes may be rendered useless.—I shall now briefly state what is contained in this Treatise.

- I. A concise description of every disease has been given, together with a particular method of treating the same through every stage.
- II. The proper method of compounding the different medicines is also detailed, detecting their qualities and regulating their doses, suitable to age and size.
- III. A number of valuable Recipes are here made known, such as have never before been published to the author's knowledge.
- IV. An Appendix is added, containing the preparation of the author's public medicines, with directions for use.—Also a collection of choice Recipes for Families.

Cattle of every description are valuable in this island, more so now than formerly. If a poor man lose a horse or a cow, it frequently ruins him : when, at the same time, if a drink or two, at a shilling or eighteen-pence each, had been given to the animal, it might have been saved, provided the medicines were administered according to the directions laid down in this Treatise. It is the interest of every Farmer and Grazier to make himself acquainted with the different diseases of Cattle, their symptoms and different methods of treatment, and if this were more generally the case, he would rarely, if ever, have occasion to employ either Farrier or Cow-leech. Medicines, when wrongly applied, or not given in a sufficient quantity, increase the malignity of most diseases, while too large a dose may endanger the animal's life. By strict attention to the following rules, most persons will be en-

abled to act with propriety and judgment.

Particular diseases, requiring more than ordinary care, are discussed at considerable length. Such are the Down-fall in the Udder of Cows, Red Water, Fevers, &c. &c. &c. A small part of this work is appropriated to the description of the diseases incident to young Calves, together with the medicines suitable to each. Also there will be found a short Treatise on Sheep, containing their different diseases, symptoms, and methods of cure. All superfluous matters are omitted, and nothing but the nature and symptoms of every disease clearly pointed out, together with its proper cure; so that persons of small abilities may, in a short time, acquire sufficient knowledge to practice therein.

AS NEAT CATTLE certainly constitute

an essential part of our national wealth, when we consider all the various purposes for which they are employed; this Introduction shall close with a few observations on their different varieties, and on the selection of stock for farms.

The most common names in use, which are given to these animals, are those of *Neat Cattle*, or *Black Cattle*. Under these appellations are included both sexes, as the Ox, Bull, and Cow; their generic characters are as follow :

Cloven footed, with or without horns,
horns bending out laterally.

Eight cutting teeth in the lower jaw,
and none in the upper.

Skin along the lower side of the neck
pendulous.

Rounded horns, with a large space be-
tween their bases.

NEAT CATTLE are called by various other names; as the *Urus*, *Auroch*, (a common name for a bull of the temperate climate, and the *Bison*, or bull, a native of hot countries. The bunch on the shoulders of a *Bison*, is doubtless a natural production and is very large when the animal is in high condition; on the contrary, when reduced by poverty, it is barely discernible, and, by inter-copulation with others that bear no such mark, this bunch will in the course of two or three descents be entirely lost.

The all-wise disposer of events has thought it good to reduce all the animal creation under the power and dominion of man.

NEAT CATTLE, may be said to rank foremost in the animal creation, especially when we consider their great utility, and

the wonderful variety of productions these valuable animals afford towards the support and use of mankind. The milk, which a single cow will yield, from the time of calving to the time of letting dry, is an amazing quantity; from this are produced butter and cheese, no trifling articles of human provision. There is, in fact, scarcely a part about this useful animal, but what is of infinite use; even the *Blood* is applied to different purposes. Butchers use it to feed swine; the chemist employs it in the preparation of Prussian blue; and the farmer for manuring his land.

Further, the *Fat* or *Tallow* of Neat Cattle is made into candles, which contribute not a little to the increase of our domestic comforts. The *Hides*, when tanned and curried, make leather of the best and strongest kind, from which boots,

shoes, and numberless other articles are manufactured. The *Hair* is used in a cement for the walls of our dwelling-houses, and the *Horns* are made into combs, handles for knives, drinking vessels, and a great variety of toys of different descriptions. The *Bones* are a cheap substitute for *Ivory*, from which a great number of useful articles are made by mechanics in large manufacturing towns; and the *Flesh* of this noble animal forms one of the most delicious and substantial dishes at our tables.

The form or construction of these animals varies according to every climate; but our present concern, is with the native breeds of our country. A great variety is to be met with in most counties or districts throughout the kingdom; it is greatly to be regretted, that farmers in general are so full of confidence in their own knowledge

as to the respective breeds, which are best adapted to their own farms ; and that prejudices thus deeply seated, are so hard to be eradicated. There is, notwithstanding, a considerable number of gentlemen graziers, in most counties, who have made a great improvement in the breed of Neat Cattle, which is much to their credit.

Such cattle as are intended to be reared, or brought up for the Dairy, or to fatten in the pasture, ought to be bred from cows of good make and shape, and which have been got by a bull of the same description. The shape and make of the male are, in most counties, eagerly sought for, and are found to be equally as necessary as the choice of a stallion for mares, or a tup for ewes. When farmers first enter upon a farm they should make themselves acquainted with the nature and quality of the soil ; whether it be better adapted for

breeding and rearing of stock ;—for keeping a dairy ;—or for the feeding of stock for the shambles. This consideration ought at all times to be regarded. It rarely happens that cattle, purchased from rich lands, do well on poor soils, but, on the contrary, those taken from poor farms, in general thrive well on good land. The choice of NEAT CATTLE, therefore, for the stocking of farms, should be regulated according to the nature and quality of the soil.

The Age of NEAT CATTLE should be understood by every one, who has any thing to do with them. They as well as sheep, have no teeth in the upper jaw, the age, therefore, must be determined by those on the lower jaw. At two years old, they get two new corner teeth, and every succeeding year they get two more, until they are five years old ; at six years old they become full mouthed, the last two being completely up.

There is another method, by which the age of NEAT CATTLE may be determined, viz. by the horns. At the age of three years their horns are smooth and even; and every succeeding year there is a wrinkle or circle round the basis near the head, which keeps moving the other forward; so that if the first wrinkle be stated at three years old, it will be easy to tell the age of any beast after that time,

YOUNG CATTLE are for the most part, best understood by the following names. The Bull, while sucking, is called a *Bull-Calf*; and from one to two years old, a *Stirk* or a *Yearling Bull*; every year afterwards he is called a Bull of three, four, five, and six years old, after which period he becomes aged. A young castrated male, after the first year is called a *Stot-Calf* or *Stirk-Stot*, and then a *Steer*; at four years old he receives the name of a *Bullock*. A female at the first is called a *Quey-Calf*; and a

Heifer till the age of four years; she then takes the name of a Cow, which is retained as long as she lives.

As soon as Neat Cattle arrive at the state of maturity, they are called by the appellation of Ox, Bull, and Cow. There is a regular time for gestation amongst the females of different animals; the Cow goes nine months in calf, sometimes a week more or a week less. The Mare goes eleven months; and Sheep five months; the Sow one hundred and fifty days.—These may all vary a few days more or less; they should be attended to day and night about the regular time of parturition, in order that every assistance may be given to the animal that nature may require; in order that the young may be preserved, and the life of the animal rescued from imminent danger.

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THE following errors had escaped the Author in writing the copy, and living at a distance from the Printer, they were unobserved till after the work was printed off.—The reader will be pleased to make the corrections with his pen.

In seventh line, page 15, after (No. 1) add “page 143.”

In twelfth line, same page, instead of (No. 3) read (No. 11, page 16) and after (No. 1) add page 143.

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EVERY MAN

HIS OWN

Horse and Cattle Doctor.

PART THE FIRST.

SECTION I.

Directions for management of Horses.

THE best method of treating horses is never to bleed or purge them, except in cases which evidently require such operation. A horse's food chiefly consists of grain and herbage, which if good in quality, and dispensed with judgment, (not omitting proper exercise and dressing) will secure him from those complicated disorders he is subject to by improper treatment.

SECTION II.

Bleeding.

Phlebotomy or bleeding is useful when a horse stands much in the stable, is full fed, and has little or no exercise; when his legs are swelled, or his eyes look heavy, red, and inflamed; also when he is thriving, or rubbing his hair off, in all inflammatory fevers, in falls, bruises, hurts of the eyes and strains, accompanied with inflammation. To know what quantity of blood you take away, it is necessary you bleed by measure, in most cases two and a half or three quarts may be sufficient. The following mixture is excellent for cooling and purging the blood.

(RECIPE, No. 1.)

TAKE—Crocus of antimony, finely levigated,

half an ounce :

Nitre, one ounce ;

Mix them together, and divide them into two parts.

Let one part be given at night, and the other in the morning, in a mash of scalded bran, or a feed of corn, moistened with water, that the powder may stick thereto.

This medicine is excellent for a horse in the spring of the year, if given him as directed, for two or three weeks, it will keep his body cool, and cause him to cast his coat.

SECTION III.

On Purging.

Purging is most proper for horses of gross, and full habit of body, that lose their appetite by full feeding, or a load of ingendered crudities upon the stomach; in this case two or three purges will be necessary. Before a purge is given, the body should be prepared, by giving mashes of scalded bran and oats, and warm water, two or three days before.

This will so open the horse's bowels, that the purge will not meet with any obstruction; but if a strong purge be given to a horse of a costive habit, it will probably occasion a violent inflammation. This may be imputed to the large tract of bowels it has to pass through, which is upwards of thirty yards; and the time the physic lies in the bowels is seldom less than twenty-four hours. If the above direction for preparing a horse for physic be observed, there will seldom any danger ensue.

(RECIPE, No. 2.)

FOR PURGING.

TAKE—Barbadoes aloes, eight drachms;

Salt of tartar, two drachms;

Ginger, two drachms;

Twenty drops of oil of cloves;

Make these into a ball, with the syrup of buckthorn.

This purge should be given in the morning, on an empty stomach: in three hours after give your horse a feed of scalded bran, warm, and a little good hay often, but not much at a time; also two more mashies the same day. But if he refuses them, give him raw bran. Take care

the water you give him be new milk warm. Early the next morning give him a mash, and warm water; clothe him, and ride him gently about two or three times a day. If the physic works too much, give him less water and less exercise; if too little, give him more exercise, and as much warm water as he will drink: at night, when the physic has done working, give him a feed of oats and bran.

While a horse's physic is working, suffer him not to go out in the rain, but walk him about in a dry place; and give him warm water, if he will drink it, two or three days after the physic has done working. The following ball is excellent for a delicate horse.

(RECIPE, No. 3.)

TAKE—Barbadoes aloes, six drachms;

Rhubarb, four drachms;

Ginger, one drachm;

Oil of cloves, twenty drops;

Make these into a ball, with syrup of buckthorn,

For a strong hackney, coach, or waggon-horse, the aloes may be increased to eight or nine drachms, according to their strength.

Mercurial physic is proper in lameness of the joints, and in all kinds of eruptions, and foulness of the blood.

(RECIPE, No. 4.)

TAKE—Calomel, two drachms ;

Liquorice powder, half an ounce ;

Make into a ball, with conserve of roses.

Give this at night, and the purging ball in page 4, next morning ; some horses are subject to over-purge, in such cases give one ounce of restorative balsam, and one drachm of tincture of opium, in one pint of warm ale ; it will check the purging, and dispel the griping pains a horse is subject to from excess of purging.

If a horse swells much with physic, he should be walked about gently in hand, till some evacuation be obtained, and if this should not succeed, recourse must be had to a cooling, purging clyster, for which give the following.

(RECIPE, No. 5.)

TAKE—Mutton broth, one quart ;

Epsom salts, four ounces ;

Common treacle, half a pound ;

Olive oil, half a pint ;

Dissolve the salts and treacle in the broth, then add the oil.

Before a clyster is given, a small hand should be dipped in the same, and passed up his fundament, to bring away the hardened dung, which may be the chief cause of the horse swelling.—The clyster should be administered with a pipe ten or twelve inches long, and a strong bladder fixed at the end thereof ; the liquid to be forced through the pipe, by twisting the bladder with your hands. As soon as the horse has received it, take away the pipe, and immediately put a wisp of straw to the horse's fundament, holding it there with the tail for the space of ten minutes.

SECTION IV.

Windy Cholic, how known and cured.

The windy cholic is known by the following remarks, the horse often lies down, and suddenly rises again with a spring; strikes his belly with his hind feet, stamps with his fore feet, and refuses every kind of food. When this disorder is violent, it throws his body into convulsive motions; his eyes are turned up, and his limbs stretched out as if dying; his ears and feet are sometimes hot, and sometimes cold; he falls into profuse sweats, and then into cold damps; he strives often to stale, and turns his head frequently to his flank; he then falls down, and rolls about, and often turns on his back: this last symptom generally proceeds from a stoppage in the urine, which attends this sort of cholic; and the pain is often increased by a load of dung pressing on the neck of the bladder. As soon as possible after the complaint is discovered, give the horse two ounces of restorative balsam, in

one pint of warm ale; and the following clyster, if the symptoms do not abate in two hours, repeat the drink.

(RECIPE, No. 6.)

FOR THE CLYSTER.

TAKE—Linseed, five ounces; boil it in three quarts of water until it is reduced to two; let it stand ten minutes, then pour off the clear, and dissolve therein four ounce of Epsom salts; half a pound of treacle; and one handful of common salt.

Let it be observed, that before any clyster be administered, a small hand well rubbed with the clyster, should be passed up the horse's fundament, in order to bring away the hardened dung, which otherwise would obstruct the clyster's passage. This will work the desired effect in all common cases.

SECTION V.

Inflammatory Gripes.

This sort of cholic, or gripes, is attended with great danger, and if a remedy be not speedily applied, often proves fatal. The disorder is attended with a fever, great heat, and dryness of the mouth; the horse generally throws out bits of dung with scalding hot water, which is offensive in smell; and his urine is blackish. When this is the case the bowels are in a state of mortification, and there is no relief; but if the disease be undertook in an earlier stage, a cure may be effected. If the horse be in good condition, bleed plentifully, then give the clyster, page 7, and two ounces of restorative balsam, in one pint of warm ale. This may be repeated every eight hours, and the clyster every four. If the symptoms are violent, and attended with convulsive motions, two drachms of fetid tincture, and two drachms of tincture of opium may be added to the above drink. If the symptoms do not

abate in three hours after the second drink, give the fever mixture as ordered in *Recipe 27*, and continue to repeat the clyster every four hours.

SECTION VI.

Dry Gripes or Cholic.

This disorder is discovered by the horse's frequent motion in straining to dung; the blackness and hardness of it, the frequent and quick motion of his tail, and by often endeavouring to stale, but can only do it in small quantities, which is occasioned by a load of dung pressing on the neck of the bladder. This sort of cholic seldom needs any other assistance than the following clyster, after a small hand has been dipped therein, and passed up the fundament, to bring away the hardened dung which is lodged in the great gut.

RECIPE, No. 7.)

FOR THE CLYSTER.

TAKE—Senna, one ounce; boil it in three pints of water for

ten minutes, then strain it off, and dissolve in it one handful of common salt.

Three ounces of Epsom salts ;

Half a pound of treacle ;

Half a pint of sweet oil ;

Mix them well together, and apply them as directed in the 7th page.

But if the clyster should not cure in one hour, give two ounces of restorative balsam, in one pint of warm ale,

SECTION VII.

Colds and Coughs.

Colds are the effects of an obstructed perspiration, by an immoderate exposure to the weather; in general they proceed from drinking cold water after violent exercise, or by going into rivers or ponds when overheated. Colds are the source of a number of disorders, such as fevers, coughs, the farcy, glanders, &c. &c.

After a horse has taken cold, he is seized with a cough, heaviness, and dulness, which affect him more or less according to its severity ; his eyes are moist and watery, the kernels about his ears and under the jaws swell ; his nose gleans, and he rattles in breathing. When the cold is violent he will be feverish, and lose his appetite.

In the cure of colds of every description, the first attempt should be to remove the cause, by giving to the animal warm cordials, which acting as a stimulant on the stomach and intestines, will give fresh motion to these parts, and will enable nature to resume her former course.

(RECIPE, No. 8.)

TAKE—Eight ounces of gum storax ;

Ten ounces of gum Benjamin ;

Six ounces of balsam Peru ;

Four ounces of balsam Tolu ;

Four ounces of gum myrrh ;

Two ounces of balsam of gilead ;

Four ounces of flowers of St. John's-wort ;

One ounce of socotrine aloes ;

Two ounces of dragon's blood ;

Four ounces of gum thus ;

One gallon of spirits of wine, rectified;

First bruise the ingredients, then mix them with the spirits, and digest in a gentle heat for fourteen days : shaking them well twice a day ; then decant it.

The virtues of this balsam are expressed in various parts of this work. Take one ounce of this balsam, and one pint of warm ale, and give it to the horse every night and morning till well.

(RECIPE, No. 9.)

TAKK—Aniseeds, caroway-seed, grains of Paradise, long pepper, cummin-seeds, diapente, of each two ounces; powder the seeds.

Mix them together for one drink, and put it in a pitcher, with four ounces of treacle, then pour one quart of boiling ale upon the whole, cover them down till new milk warm, and then give the drink.

By this method the whole virtue of the seed will be retained, which chiefly consists in the essential oil ; this drink may be given every day, let him eat nothing for two hours after the drink, then give him a mash of scalded bran and oats. Clothe your horse, and keep him warm ; let him be walked out in the middle of the day.

The Dry Cough.

This is a convulsive motion of the muscles of the thorax and abdomen; it is generally occasioned by cold, and a stoppage of perspiration. If the horse appears healthful, can do his work, and eat his food, there is no great danger; and in all probability the balsam drink, (No. 1.) will cure in four or five times taking. If the cough be of long standing, with a wheezing and rattling in the nose and throat, he will be in danger of breaking his wind; if so, give the drink (No. 3.) every night, and the drink (No. 1.) every morning; let the horse eat nothing for two hours after he has taken it, then give him a mash of scalded bran and oats, and warm water.

SECTION VIII.

Asthma and Cough.

The asthma is a disease common among horses at the spring of the year, before they are turned out to grass, and at the latter end when they are taken up to dry meat.

An asthma is attended with a quick and short breathing, and a cough, sometimes dry and sometimes moist, with a quick motion of the flank; if the horse be trotted or run in the hand, he will wheeze and rattle in the throat like one that is broken winded.—First, at night give him (No. 3.) two drachms of calomel made into a bolus, with conserve of roses; and next morning the following purging ball.

(RECIPE, No. 10.)

TAKE—Eight drachms of Barbadoes aloes;

Gum ammoniac, assafœtida, galbanum, and oil of aniseeds, of each two drachms;

And make the whole into a proper consistence, with treacle.

This bolus and ball may be repeated three or four times at due distances; and during the intervals of purging two ounces of the following asthmatic elixir, every night, in a pint of hyssop tea or barley water.

(RECIPE, No. 11.)

TAKE—Eight ounces of honey;

Salt of tartar, and Spanish juice, of each two ounces;

Turkey opium, camphor, and flowers of Benjamin,
of each two drachms ;

Oil of aniseed, one drachm ;

And four pounds of proof spirits.

Put all the ingredients into a glazed earthen bottle, and digest in a gentle heat for seven days. Give your horse during the time he takes the medicine, warm water and mashes, and proper exercise twice a day, in the open air. No medicine can be better calculated for this complaint : it allays the tickling which provokes frequent coughing, opens the breast, and gives more liberty of breathing ; takes off the uneasy sensation of acrimonious humours, cleanses the small glands, and makes way for their discharge ; enlarges the capacities of the vessels in which consists the cure of an asthma.

SECTION IX.

Glanders.

The glanders are known by matter running from the nostrils, which is yellow or greenish,

and sometimes tinged with blood. When the disease is of long standing, and the bones begin to decay, or when the matter is brackish, and becomes very offensive, the disease is deemed incurable. It is always attended with a hard swelling of the glands, or kernels under the jaws. This disease begins with a light inflammation on the pituitary membrane, which lines the partition along the inside of the nose, and the frontal cavities above the orbits of the eyes, while every other part of the body is free from any disorder. There are several sorts of diseases falsely called the glanders. They may proceed from an ulceration of the lungs, which is a whitish matter coming away by lumps.

The second sort, seizes a horse after some long continued disease brought on by hard labour, which affects the lungs; the humour then appears whitish, tinged with yellow.

The third is a discharge from the strangles, which often times vents itself at the nostrils. (See the Strangles.)

The fourth is when an acrimonious humour in the farcy seizes these parts, where it soon lays an incurable foundation.

As there are several sorts of this disease discernable to the eye, it will be proper to inform the reader, that the three first mentioned (falsely called the glanders) are undoubtedly curable.

(RECIPE, No. 12.)

TAKE—Flowers of sulphur, half a pound;

Crude antimony, crocus metallorum, finely levigated,
each half a pound;

Socotrine aloes, four ounces;

Camphor, four ounces, dissolved in two ounces of
spirits of wine.

This composition must be made into balls of the size of a pigeon's egg, with a sufficient quantity of honey, and one of them given every night and morning before exercise, which may be continued for a month or six weeks, or longer if necessity requires.

This disease is incurable when the matter discharged from the nostrils turns greenish, or tinged with blood, and sticks to the middle of the passage like paste or glue. If the horse be poor, he is generally afflicted with the farcy as well as the glanders, though it may not make its ap-

pearance to the eye for some time ; but when it threatens, it is easily known by the sharpness of the corrosive matter that runs down his nostrils, which even scalds and destroys that gristly and bony substance which separates one cavity of the nose from the other.

(RECIPE, No. 13.)

TAKE—Sugar of lead, half an ounce ;
Allum in powder, two ounces ;
Dissolve them in half a pint of warm water ;
Camphor, half an ounce, dissolved in one ounce of spirits of wine ;
Mercurial sublimate, one scruple, dissolved in one ounce of spirits of wine ;
Lime water, one pint ;
Mix, and shake them all together for an injection, and put them in a bottle for use.

To make use of this injection, take a syringe or pipe about ten inches long, and force three ounces of it up his nostrils every morning before he goes to exercise, and every evening after he returns.

If the horse be fat, bleeding and rowelling will be serviceable, but if poor, the contrary.

Blistering will also be necessary in this disease: first, clip the hair off the kernels which are under the jaws, then apply a strong blister on the swelled part which must be repeated every morning for a week; this will greatly relieve the glands of that inflammatory tumour with which they are affected. When the lungs are affected the following has been known to succeed in several instances.

(RECIPE, No. 14.)

TAKE—Powder of myrrh, half an ounce;

Ginger, two ounces;

Sulphur, two ounces;

Mix them together in a warm mash of bran.

Place this in a little tub under the horse's nose, without suffering him to eat it, and cover his head with a rug, so that all the air that he breathes may be strongly impregnated with the ingredients; and when the mash is cool enough, put it into a close bag, like those which the hackney coachmen use for feeding their horses with while at their stands, then draw the bag over the horse's nose and fasten it to his head: by the time this is got cold have a fresh one ready to apply in the same manner, and repeat the process six or eight times the first day;

this will bring great quantities of mucous or slime away from his nose ; let the application be renewed every two or three days, and it will greatly relieve him.

SECTION X.

Farcy.

The Farcy is a sharp corrosive watery tumour in the blood, attended with an inflammation ; it appears like round buds or berries sprung out over the veins, which are first hard but soon turn to soft blisters, and when broken discharge an oily bloody matter, and often turn into obstinate ulcers. In some horses it shews itself in the head only ; in others, on the external jugular or neck vein ; in others, on the plate vein and runs down the inside of the fore leg, commonly called the fore arm, towards the knee, and often upwards towards the brisket ; on some it shews itself on the hind parts, about the pasterns, and along the large veins on the inside of the thigh, rising up-

wards into the groin and towards the sheath; sometimes it appears in the flanks, and spreads by degrees towards the belly. When the farcy appears on the forehead, the cheeks, the outside of the shoulders near the withers, or the hip, it is easily cured.

The worst symptoms in the farcy are when the veins within the thigh are corded and set with buds, so as to affect the kernels of the groin, and the cavernous body of the yard; when it breaks out on one side of the thigh, and afterwards on the other, or on both sides at once, so that the sores and ulcers become malignant and affect the whole body. Without due attention to a regular course of medicine, proper feeding and exercise, this disorder will increase, and end in an incurable glanders.—The following drink will be found of great use, in every stage of this disease.

(RECIPE, No. 15.)

TAKE—Guaiacum shavings, one pound and a half;

Crude antimony, powdered, six ounces, tied in a bag;

Sassafras chips, one pound;

Juniper berries, half a pound;

Logwood chips, one pound;

Sena, two ounces ;

Water, four gallons ;

Boil them all together till one half is consumed, then pour the decoction into an earthen vessel for use.

Give one quart of this decoction every morning fasting, for three weeks, or longer if necessary, and let the horse eat nothing for two hours after taking it ; then let him have a hot mash of scalded bran and oats, and warm water : but in the most obstinate farcy, where the veins are obstructed, and attended with a large inflammatory tumour, recourse must be had to some powerful medicine, such as the following.

(RECIPE, No. 16.)

TAKE—Corrosive mercurial sublimate, ten or twelve grains, dissolved in two ounces of spirits of wine ;

Two drachms of tincture of opium, added to one quart of the above decoction.

This may be given every day for a week, or every other day for a fortnight or longer ; but if his mouth grows sore and his breath offensive, omit it for a week, then repeat it again as before. Keep him warm and in regular diet, with gentle exercise twice a day if the weather is fine, give him warm water and mashes morning and evening

during the course of this medicine, and it will be found very powerful in purifying and opening obstructions in the blood vessels, and dissolving those buds that appear tracked along the veins. It is necessary in this disease to give a dose of cooling physic, once every week, while under a course of mercurials.

(RECIPE, No. 17.)

TAKE—Seven drachms of Barbadoes aloes ;

Cream of tartar, two ounces ;

Ginger, three drachms ;

Nitre, one ounce ; dissolve them in one quart of ale.

This drink must be given in the morning fasting, and the horse must eat nothing for two hours after, then let him have a mash of bran, oats, and warm water twice a day ; if the horse be fat and full of blood, bleeding and rowelling under the belly are necessary in the beginning of this disorder, but if lean the loss of too much blood will prove injurious. Rub the farcy-buds once a day, both before and after they are broken, with mercurial ointment, and it will dissolve the farcy tumours which obstruct the blood vessels. When the skin is thickened over the ulcers so as to confine the matter, it must be opened with a lancet.

The buds in the farcy are very apt to turn into foul ulcers, and the orifices to fill with proud flesh, which may be suppressed by touching the flesh with a skewer dipped in the butter of antimony, or aquafortis. If the part be much swelled or inflamed, it must be fomented twice every day with the following fomentation.

(RECIPE, No. 18.)

TAKE—Wormwood, marshmallow-roots, plantain, horse-radish-roots, each one handful, boil them in three gallons of old urine.

The part swelled must be fomented with hot flannels, wrung out of the same, twice every day, an hour each time. This being done, let the part be rubbed well with mercurial ointment, and a hot flannel applied to the swelled part, and bound on with a flannel roller three yards long and eight inches broad.

When the tumour comes to a proper head, which may be easily felt by the finger, it may be discharged with a lancet, and dressed with a skewer dipped in a little butter of antimony, and afterwards with a tent made of hurds, dipped in

the digestive oils or ointments used for green wounds. The smaller the tent is the more oil or ointment it carries into the wound, which should never be dressed longer than while the tumour is subsided, otherwise it may obstruct the matter and form a caries at the bottom of the wound, and make it very difficult to cure.

Nevertheless, when the wound is perfectly cleansed, it must be dressed two or three times with Ægyptiacum ointment, then finish the cure with the restorative balsam anointed on the wound with a feather, and afterwards let burnt allum and bole armenian, equal quantities be mixed together, strewed over it, which will soon dry and heal it up.

SECTION XI.

Surfeits, Hide-bound, and Mange.

Surfeits arise from various causes, but are most commonly the effects of some disease which is badly cured. When a horse is surfeited, his

coat will stare and look ragged, notwithstanding all proper care has been taken to keep him clean, and the skin will be found full of scales and scurf, lying thick like meal among the hair, which if rubbed off return again.

Others have small lumps like beans or peas, while they are in the stable, which often disappear when turned out to grass; some have scabs all over their limbs and bodies, sometimes moist and sometimes dry, attended with heat and inflammation; and the humours so sharp and irritating, that they chafe themselves raw in many places. Others have flying pains and lameness, resembling the rheumatism or flying gout. In curing these complaints the following method will be found successful.

One quart of the decoction ordered for the farcy must be given every morning fasting, and one ounce of the following powders every evening in his mash.

(RECIPE, No. 19.)

TAKE—Crocus of antimony, four ounces;

Crude antimony, four ounces;

Nitre, four ounces;

Flowers of Sulphur, four ounces;
Sulphur of antimony, one ounce;
Eight ounces of aniseed; let the antimonials be finely
levigated; and the nitre and aniseed finely powdered.

This medicine may be continued for three or four weeks if the case requires it. While a horse is under a course of this medicine, he must have mashes of scalded bran and oats twice a day; and if the scabs do not come off in a week's time after taking it, let him be well dressed with the scab ointment, in the same manner as used for the mange.

A wet surfeit is no more than a moist running scurvy, which appears on different parts of the body with great heat and inflammation; the neck or the withers often swell greatly in one night's time, and issue a large quantity of briny humour, which without care, may turn to a poll-evil or fistula. This humour sometimes falls on the lower limbs, and is often very troublesome to cure. In this case bleed plentifully, and administer the following cooling physic once a week.

(RECIPE, No. 20.)

TAKE—Aloes socotrine, four drachms;
Lenitive electuary, three ounces;
Cream of tartar, two ounces; dissolve them all in a
pint of warm ale.

This dose must be administered in the morning fasting, in two hours after give a warm mash, and warm water. If the above does not carry off the complaint in a fortnight's time, recourse must be had to the decoction and powders used for the dry surfeit during a week or two, which will effectually take away the complaint.

Mange.

The mange is a cutaneous disease, which renders the skin tawney, thick, and full of wrinkles, especially near the mane, ears, loins, and tail; the hair in these parts generally rubs off, and what little remains commonly stands out like bristles. Some horses are so affected with this complaint, that there is scarcely a clear place about the body. But the following ointment and wash never fails to promote an entire cure.

(RECIPE, No. 21.)

TAKE—Common, or horse turpentine, one pound ;

Quicksilver, two ounces ;

Hog's lard, half a pound ;

Flowers of Sulphur, half a pound ;

Train oil, half a pint ;

Grind the silver with the turpentine in a marble or stone mortar, till it disappears, then gradually add the lard, warmed, with the other ingredients.

This ointment must be well rubbed on every part affected, in the open air, in hot or warm weather, and in winter time at the blacksmith's shop, where a large bar of iron must be heated, and held over the horse to dry and strike the ointment in.

(RECIPE, No. 22.)

FOR THE WASH.

TAKE—Fresh butter, one pound;

Train oil, one quart;

Verdigris, two ounces;

Corrosive sublimate, half an ounce;

Flowers of sulphur, half a pound;

Old urine, three quarts;

Boil them all together for use.

This wash must be well rubbed in with a hand-brush in hot or warm weather, in winter a hot bar of iron must be held over every part of his body affected. If the horse draws in a team the inside of the collar must be washed, or the inside of the saddle if a saddle-horse.

A horse affected with the mange or scab, may take the decoction and powders ordered for the surfeit, for three or four days before he is dressed, and the same after dressing, or longer. When a horse has got free from this disease, the place where he stood must be well cleansed, and his collar, gears, saddle, clothing, or whatever he wore during the disease, must be well washed with soap and water.

SECTION XII.

Staggers, Convulsions, Lethargy, Epilepsy, and Vertigo.

All distempers of the head are generally included under two denominations, *viz.* Staggers and convulsions.—The symptoms are as follow: the staggers or apoplexy is attended with drowsiness, the eyes full and inflamed, and sometimes watery, his head continually hanging down, and he sometimes reels and staggers about like a person intoxicated.

The Lethargy, commonly called the sleeping evil, is a disorder in the head; the horse frequently falls asleep with his head resting on the manger, and often shews an inclination to eat, but falls asleep with the food in his mouth. This disease is also called the sleeping-staggers.

The epilepsy and convulsions, generally arise from blows on the head, violent exercise, surfeits, strains, and sympathy of the nerves; for violent pain in any part of the body will cause convulsions, especially if the nerves and tendinous parts be affected with wounds, punctures, and bruises externally, or botts and worms vellicating and wounding the coats of the stomach, which is sometimes violently distended with a load of indigested food, or matter being too long retained, and this is generally attended with costiveness.

This disease has various terms, but is commonly called the staggers and convulsions.—When the horse is raging it is called the mad staggers; and if care be not taken, he will knock and bruise his head in such a manner that it will be in danger of mortifying; to prevent which, every corner of the stable should be well stuffed with straw, so that he cannot hit his head against the wall, for a horse

in this situation is like one yoked in harness and drawing at a weight, pushing forward with all his strength till he is exhausted, and then drops down as if shot.

In these cases if the most powerful means are not immediately applied, the consequences will prove fatal. If the horse be fat bleed plentifully, if lean, sparingly ; then administer the following clyster.

(RECIPE, No. 23.)

TAKE—Three or four large handfuls of bran ;

Senna, three ounces ;

Bitter apple, half an ounce ;

Bruised aniseed, two ounces ; boil them in three quarts of water, to two, strain off, and add two drachms of powdered jalap, and half a pint of oil.

This clyster should be repeated night and morning, so that the horse may be kept in a constant state of moderate purging for twenty-four hours : by this method the vessels will be much sooner emptied than by purges administered at the mouth, which take up a considerable time before they operate.

Should the symptoms arise from fever or rarefaction of the blood, from violent exercise in hot weather, give the following drink.

(RECIPE, No. 24.)

TAKK—Wild valerian root, bruised, four ounces;

Boil in three quarts of water, to two, then dissolve in it half a pound of nitre, and add a pint of antimonial wine.

This drink may be given every six hours, for two or three days, in order to attenuate the viscid blood and juices, and to promote a free circulation through the vessels of the brain; but if notwithstanding the above plentiful evacuations by repeated bleeding, clysters, &c. the horse should beat about with great violence, and be attended with strong convulsions, half an ounce of opium should be dissolved in the above drink, which may be repeated every eight hours, until the convulsions abate, when the opium may be omitted and the drink continued: but should the spasms not remit, a drachm or more of opium must be added to the drink.——But let it be remarked, that when this disorder is attended with great

fever, or tendency to inflammation of the brain, which may be discovered by the usual symptoms of a hot mouth, dry tongue, hot ears and skin, and a due attention to the pulse; nitre alone should be given, to the quantity of half a pound or more, in twelve hours; with large bleedings, and cooling emolient clysters.

(RECIPE, No. 25.)

FOR THE CLYSTER.

TAKE—Valerian root, bruised, four ounces; boil in five pints of water, to two quarts; in the strained liquor dissolve two ounces of assafoetida, four ounces of nitre, and half an ounce of opium.

When medicine cannot be taken by the mouth, this clyster must be given, and repeated occasionally; for the spasms on the membranes and muscles are sometimes so great, as totally to lock up the jaw: under such circumstances, the opium must be chiefly depended on, and the horse's food must be taken this way, consisting of clysters composed of milk, broths, &c. to the quantity of three or four quarts a day, and the following liniment applied.

(RECIPE, No, 26.)

TAKE—Soap liniment, four ounces ;
Spirits of Sal-ammoniac, four ounces ;
Tincture of opium, one ounce ;
Spirits of turpentine, two ounces ; mix them together.

After well brushing the muscles of the jaws, neck, temples and cheeks, rub the parts well with the liniment, twice a day.

SECTION XIII.

Fevers.

Fevers in general are the effect of a strong unnatural motion of the blood, which occasions great heat and inflammation in the body, and the pulse is quickened beyond its natural speed. The general symptoms are loss of appetite, restlessness, the horse ranging from one end of the rack to the other, his eyes red and inflamed, his tongue parched and dry, his flanks beat quick, his breath

hot and offensive, he nibbles at his hay and frequently hangs his head down to the ground; his pulse beats upwards of fifty times in a minute, the heat of his body appears several degrees hotter than usual, though not parched as in some inflammatory disorders.

The internal inflammatory fevers generally take their seat at the stomach from a cold, or a large distension of the stomach by a load of indigested food, causing the inflammation to extend into various parts of the body, which obstruct the perspiration, and if not removed by some powerful medicine, will soon end in a mortification.

The symptoms of a violent inflammatory fever, are similar to those of the staggers, and require almost the same treatment; sometimes the horse affected, appears quite senseless and stupified, stales and dungs insensibly, ranges about in the stable, and is subject to bruise himself against the walls; his flanks beat, his ears and legs are hot and cold by turns, his body is often in great heat and sometimes emits cold sweats.—In these cases, first bleed plentifully, take away to the quantity of three or four quarts, then give the following drink.

(RECIPE, No. 27.)

TAKE—Senna leaves, two ounces ;

Grains of Paradise, two drachms ;

Cream of tartar, one ounce ; infuse two hours in a pint and a half of boiling water ; strain off, and dissolve in it four ounces of Epsom salts, and two ounces of syrup of buckthorn.

If the fever increases after the drink, recourse must be had to this mixture for inflammatory fevers.

(RECIPE, No. 28.)

TAKE—Emetic tartar, one ounce ;

Calcined antimony, two ounces ;

Calcined hartshorn, one ounce ;

Mix, and grind them together to a fine powder, in a mortar, then put them into a glass bottle, and cork them up for use ; two drachms of these powders to one dose, mixed in honey, or conserve.

A dose of this mixture may be given twice or three times in twenty-four hours, if the fever be violent, and the horse very restless. The above powders are excellent for the staggers, convulsions, and all kinds of inflammatory fevers.

When the disease begins to abate, the horse will begin to recover his senses, and look brisker with his eyes ; his appearance more lively, and he will now eat his meat. In this case the medicine may be omitted, and the following strengthening drink administered.

(RECIPE, No. 29.)

TAKE—Peruvian bark, one ounce ;
Gentian root, half an ounce ;
Virginia snake-root, one drachm, in powder ;
Salt of tartar, half an ounce ;
Elixir of vitriol, one drachm ; to be given in one quart
of warm ale.

This drink will strengthen the entrails, and promote an appetite, and is excellent in all disorders attended with a slight fever. It may be given every morning or every other morning, for three or four times, or longer if necessary.

SECTION XIV.

Bruises.

A horse that is much bruised with falls or blows should first be bled, and then treated as follows.

(RECIPE, No. 30.)

TAKE—Spirits of turpentine, four ounces ;

Spirits of sal ammoniac, six ounces ;

Opodeldoc, four ounces ;

Camphorated spirits of wine, four ounces ;

Pale oil, half a pound ;

Mix them well together, and rub well the bruised parts with it once or twice a day.

If the horse appears dull, stiff, and sore, and his appetite fails, give him the following drink.

(RECIPE, No. 31.)

TAKE—Peruvian bark, half an ounce ;

Gentian root, powdered, half an ounce ;

Cream of tartar, one ounce ;

Treacle, four ounces ; give these in a pint of ale.

This drink may be repeated every morning, or every other morning fasting, till his appetite is recovered, and the soreness and stiffness be abated, and give him warm water and mashes twice a day until his recovery.

SECTION XV.

Of the Strangles and Vives.

The strangles is a disease to which most young horses are subject at one time or other. It generally begins with a swelling betwixt the jaw bones, which extendeth to the muscle of the tongue, and causes great heat, pain, and difficulty of swallowing. The internal symptoms are a feverish heat throughout the body, a painful cough, a great thirst, attended with extreme difficulty to drink : some horses entirely lose their appetite, and others eat very sparingly. The in-

flammation or swelling generally appears on the inside of the jaw bone, sometimes in the middle betwixt the jaws under the tongue roots and the upper part of the throat, called the larynx, or the head of the wind-pipe or gullet; when this last part is affected he breathes quick, and holds out his nose and head constantly in the same position; his eyes appear to be fixed in his head. This disorder sometimes discharges itself at the nose, which is very troublesome to cure, and is then called the bastard strangles.

The best remedy is to assist nature, by giving warm water and hot mashes, with one ounce of nitre, twice a day, which will abate the feverish heat internally. The swelling under the jaws must be well rubbed once or twice a day with the following liniment, and afterwards a poultice must be applied over the swelled part, and his head and neck covered with a warm hood or flannel.

(RECIPE, No. 32.)

FOR THE LINIMENT.

TAKE—Alder and marshmallows ointment, each four ounces;
Spirits of sal ammoniac, two ounces;

Oil of turpentine, half an ounce ;

Vinegar, two ounces ; mix them well together in a liniment,

(RECIPE, No. 33.)

POULTICE FOR SWELLING.

TAKE—Boiled turnips, or lilly roots, half a pound ;

Linseed, powdered, four ounces ;

Oatmeal, or rye flour, and lard, a sufficient quantity.

Or ale dregs, one quart ; fenugreek seed, two ounces, bruised ; boil them together, and mix them with a sufficient quantity of rye flour, then add two ounces of hog's lard to prevent it growing stiff and dry,

The poultice may be repeated once or twice a day, and applied over the part as hot as the horse can bear it. The matter is generally formed in five or six days, and makes its way through the skin. If the discharge be not large enough, it may be opened with a lancet or knife made for that purpose, and afterwards dressed with the following digestive ointment once a day.

(RECIPE, No. 34.)

TAKE—Bees-wax, four ounces ;

Black pitch, two ounces ;

Rosin, six ounces ;
Horse turpentine, four ounces ;
Linseed oil, one pound ;
Oil of turpentine, four ounces ;
Verdigris, two ounces, in fine powder ; melt the wax,
pitch, and rosin first, then add the other ingredients,
and boil all together on the fire, then take them off,
and stir them gradually till cool.

When this ointment is used a small quantity should be melted in an iron ladle, and the wound dressed with a small tent of hurds dipped in it. If the wound heals too fast, it may be dressed with a skewer dipped in a little butter of antimony, to keep the wound open till the tumour is discharged. If any lumps or hard swellings still remain under the jaws, they may be dressed with the mercurial ointment. (See the Scab on Sheep.)

SECTION XVI.

Diseases of the Eyes.

Diseases of the eyes require skilful attention, some of these proceed from external injuries affecting the globe of the eye, others from internal

accidents affecting the humours within the globe. In all recent disorders from external injuries as blows, bruises, hurts, &c. and the eye-lid attended with a swelling and inflammation, the eye must first be washed with a little of the following eye-water, and then bathed with it three or four times a day.

(RECIPE, No. 35.)

TAKE—Camphor, two drachms, dissolved in one ounce of spirits of wine, add Goulard's extract, one ounce; stir them together, then add rose-water, one quart; shake all together in a bottle for use.

Let the eye and eye-lid be bathed three times a day with a linen rag dipped in the eye-water; the eye may be opened with the finger and thumb, and a few drops put upon the eye. If it be much swelled and inflamed, an equal quantity of the above eye-water and vinegar may be mixed together, and the part well bathed night and morning. If the symptoms do not abate in three or four days, recourse must be had to bleeding and purging. A horse in every stage of this disorder must have warm water and mashes.

All wounds on the eye-lid must be carefully searched into with a probe or quill, and afterwards dressed with the following mixture: honey of roses and restorative balsam, of each an equal quantity; the wound must be dressed with a small tent of fine hurds dipped in the mixture, or the medicine forced into it with a syringe, and a bit of hurds moistened in the above mixture, and laid over the mouth of the wound. The swelled part may be rubbed with the ointment of alder. If a film or slough remains in the eye after the above complaints, it may be removed by blowing into the eye an equal quantity of sal ammoniac, and double refined sugar in powder, once or twice a day. If this does not produce the desired effect, try the following ointment.

(RECIPE, No. 36.)

TAKE—Ointment of tully, one ounce;

Honey of roses, two drachms;

White vitriol, half a drachm:

Mix them well together.

This may be applied to the eye by means of a feather or pencil, drawn over it once a day, till the speck or film removes; then bathe the eye once a day with the above eye-water till its strength is recovered.

SECTION XVII.

Symptoms of Moon-eyes.

This disease makes its appearance when the horse is about five or six years old, and returns periodically ; it begins with a dim cloud over the eye—the eye-lids swelled, and generally shut ; a sharp corrosive watery humour constantly running from them, which scalds the cheek, and takes off the hair as far as it goes. A *cataract* is an obstruction of the pupil, or the interposition of some opaque substance, either diminishing or totally extinguishing the sight. The cure in both cases is nearly the same. The horse must first be bled, then let his eye be dressed or bathed three times a day with camphorated spirits of wine, and rowelled at proper times. If the symptoms are violent, the horse's body should be kept cool and open, with warm water, mashes, and the following ball.

(RECIPE, No. 37.)

TAKE—Nitre, two ounces ; made into a ball with honey.

This must be given once a day for a fortnight, and if the symptoms do not abate in that time give the following ball.

(RECIPE, No. 38.)

TAKE—Barbadoes aloes, four drachms ;
Colocynth, in powder, two drachms ;
Calomel, two drachms ;
Oil of cloves, forty drops ;
Make these into a ball with syrup of buckthorn.

This ball may be given once a week as long as necessary.

The *Haws* are horny substances which grow in the corner of the eyes : the operation of removing them is performed in the following manner.—The horse's head must be well confined, and his nose twitched with a twitch made for the purpose ; this done, take half-a-crown, or something about that thickness, and pass the edge of it betwixt the eye and the haw ; then take a crooked needle threaded with silk, and pass it through the *haw* against the half-crown, or whatever else you hold, by this means the eye will be preserved from danger, then by drawing a little towards you it pulls the haw from the eye, and with a good pair of scissars let

it be clipped off close to the eye, and afterwards dress it with restorative balsam, and if any spongy flesh should arise, a sprinkling of burnt allum now and then, will soon remove it.

SECTION XVIII.

Pleurisy, and Inflammation of the Lungs.

Whether the inflammation takes its rise from the pleura or the external coat of the lungs, is a matter of no great concern, as the disorders are similar. It appears most probable that the inflammation arises in the pleura and spreads from thence to the lungs. The causes are cold, affecting the sudden and great distention of the pleura in respiration, drinking cold water after being heated, by violent exercise, low or high feeding, want of exercise, and bleeding when the body is full of blood and humours; riding a horse deep in cold water when hot, or letting him stand long in the cold. The symptoms of a

pleurisy and inflammation of the lungs are much the same: but with this difference, that in the pleurisy a horse shews great restlessness, heaves and works violently with his flanks, and for the most part his belly is tucked up. The fever at first is moderate, and afterwards rises to a great height. In the beginning of this disease he often strives to lie down, but starts up again immediately, and frequently turns his head to the side affected; his ears and feet are hot, and his mouth parched and dry; and is continually troubled with a short and apparently painful cough in the beginning of the complaint, but when it is more advanced there is generally a kind of ropy slime found in his mouth, attended with a similar discharge from the nostrils. In the first place if the horse be strong, take three quarts of blood from him, if poor or lean of flesh, a quart or three pints will be sufficient, then give the following drink.

(RECIPE, No. 39.)

TAKE—Restorative balsam, one ounce;
Tincture of bark, one ounce;
Spirits of nitre, half an ounce;
Tinctue of opium, half an ounce;
One pint of warm ale.

Give this drink as soon as possible, and if the symptoms do not abate in three hours repeat the drink again, and give the following clyster.

(RECIPE, No. 40.)

TAKE—Fenugreek seeds, bruised, four ounces; boil in three pints of water, then strain, and add to the liquor four ounces of treacle;

Nitre, one ounce;

Glauber's salts, four ounces;

Sweet oil, half a pint.

Before the clyster is applied, a small hand must be passed up the fundament to bring away the dung. Repeat the clyster once a day till the symptoms are entirely abated. And after this, for two or three weeks, give your horse the powders as in (No. 1, page 2), of which let one be given every morning and evening in his mash—give him warm water and plenty of exercise.

SECTION XIX.

Broken Wind.

The symptoms are a hollow cough, which is increased by exercise, and attended with a wheezing, and a violent working of the flanks.

The causes may be a preternatural enlargement of the lungs, by obstructions in the minute vessels thereof, which may have had their origin either in defluxion or inflammation. In the beginning of this disease treat it as ordered for the asthma—see page 16. When this disease is confirmed, it is to be feared medicine can only palliate and mitigate the symptoms.

SECTION XX.

The Yellows or Jaundice.

The signs of the jaundice are a dusky yellowness in the eyes, and all the internal parts of the mouth; the horse is heavy and dull, and regardless of his food; his urine of a saffron colour, and when exposed to the air sometimes looks as red as blood; the dung is hard, dry, and of a pale yellow colour. The fever is slow, and unless checked in time, both it and the yellowness will increase, which will bring on an inflammation of the liver. In this case the horse will soon grow frantic, he will stale with pain and difficulty; the off-side of his belly will feel hard, and distended from the swelling of the liver. This disease, if of long standing, and in old horses, becomes very troublesome to cure; but if the distemper is recent, and in young horses, the cure will soon be performed by the following directions. First, (if no circumstance indicates to the contrary) let the horse be bled plentifully, then give the clyster (No. 6, page 9), and the day after the following ball.

(RECIPE, No. 41.)

TAKE—Barbadoes aloes, one ounce ;

Rhubarb, two drachms ;

Castile soap, half an ounce ;

Oil of cloves, twenty drops ;

Make these into a ball, with the syrup of buckthorn.

This purging ball must be given in the morning fasting, and the horse managed in the same manner as in other purges. It may be repeated two or three times every fortnight, and in the interim, betwixt each purging, give the horse the following drink two or three times a week, after the horse has done purging.

(RECIPE, No. 42.)

TAKE—Horse spice, one ounce ;

Turmeric, two ounces ;

Castile soap, one ounce ;

Saffron, two drachms ;

Madder, one ounce ;

Diapente, one ounce ;

Rhubarb, two drachms ;

Boil them in three pints of ale, and give the whole for one drink.

By this method the distemper generally abates in a week's time, which may be discovered by an alteration of the horse's eyes and mouth, but the medicine must not be omitted till the disorder totally disappears.

SECTION XXI.

Of Alterative Medicines.

By alterative medicines are meant such as have no sensible operation, but imperceptibly carry off humours and distempers, until the constitution and health are restored to their pristine state. This sort of medicine may be given in most internal diseases, when the violence of the symptoms are abated.

(RECIPE, No. 43.)

TAKE—Cinnabar of antimony, two ounces;

Rhubarb, two ounces;

Nitre, two ounces;

Castile soap, four ounces ;

Barbadoes aloes, one ounce ;

Salt of tartar, one ounce ;

Slice the soap, and reduce the other ingredients to a very fine powder, and make into ten balls, with treacle and liquorice powder.

(RECIPE, No. 44.)

TAKE—Crocus of antimony, finely levigated, four ounces ;

Sulphur of antimony, two ounces ;

Gum guiacum, three ounces ;

Barbadoes aloes, two ounces ;

Sal prunella, four ounces ;

Castile soap, four ounces ;

Make the whole into a mass with treacle ; divide into twelve balls.

One ball may be given every other morning, for two or three weeks together, as may be thought proper.

(RECIPE, No. 45.)

TAKE—Æthiop's mineral, one ounce ;

Gum guiacum, two drachms ;

Camphor, one drachm ;

Honey enough to form a ball.

farcy, glanders, or some other dangerous and obstinate complaint generally follows.—To remedy the above complaint, the horse must first be bled, to the quantity of a quart, then clothe him well, to raise the heat of his blood, and in half an hour after give the calomel ball.

(RECIPE, No. 47.)

TAKE—Calomel, two drachms ;

Jalap, two drachms ; Make into a ball, with conserve of roses, and a little liquorice powder.

In four hours after the above ball is administered, let the purging drink (No. 27, page 39), be given to cleanse the stomach and bowels of that slimy and greasy matter, and coagulated blood which is apt to run into lumps, and occasion a total stagnation. If the fever should continue after the above medicine is given, recourse must be had to the fever mixture (No. 28, page 39), which may be administered once or twice a day till it totally disappears, and the horse's appetite is recovered. Then give the horse one of the alterative balls (No. 43, page 56), every week for three or four weeks together, and the following ball once in three or four days.

(RECIPE, No. 48.)

TAKE—Nitre, two ounces ;

Camphor, two drachms ;

Mixed into a ball with honey.

By this method the swelled legs will return to their proper state. The observation of these particulars will render every sensible person capable of managing the complaint throughout every stage.

SECTION XXIII.

Hurts and Strains in the Kidnies.

The kidnies of a horse may be injured divers ways, either by overloading, drawing, or hard riding. The symptoms are weakness of the back and loins, faintness, loss of appetite, deadness in the eyes, and difficulty of staling, with a thick, foul, and sometimes bloody urine. From

whatever cause the complaint may proceed, bleeding, in proportion to the urgency of the case, should never be neglected; immediately after bleeding him, give the following drink.

(RECIPE, No. 49.)

TAKE—Restorative balsam, one ounce;
Balsam of capivi, half an ounce;
Venice treacle, one ounce;
Mix in one pint of warm ale.

This drink must be given every morning fasting, for a week or fortnight, as necessity requires. If the horse appears weak across the loins, and can scarcely lift his hind parts after him, let the following charge be applied all over his loins, but not till you have reason to believe the medicine above will not restore him.

(RECIPE, No. 50.)

TAKE—Burgundy pitch, four ounces;
Common pitch, four ounces;
Oxycroceum plaister, two ounces;
Strengthening plaister, three ounces;
Melt them all together.

This must be spread all over the loins before it is cold, and afterwards some short wool spread upon it; then turn the horse out to grass for six weeks or longer, as the case may require. The *strangury* proceeds from an inflammation of the kidneys, a stone in the neck of the bladder, &c. The symptoms of an inflammation in the kidneys, are a preternatural heat in the loins, attended with a fever. When there is a stone in the bladder, the urine is generally mixed with a mucus or pus; and in an inflammation of the neck of the bladder, there is a great heat between the anus and the scrotum. If there is a cramp in the neck of the bladder, the urine which comes away will have a strong smell; and whenever the urine is obstructed by a stone in the kidneys, or urethra, the bladder will be empty, and the horse will not strive to stale as in other disorders in the urinary passages, when the bladder is full. If the urine be entirely stopped, the horse's body in a few days will be swelled with water to an amazing degree, and unless a speedy relief be obtained, he will die very soon. If the disorder be an inflammation in the kidneys, or the bladder, bleed to the quantity of three pints or more, then give the following drink.

(RECIPE, No. 51.)

TAKE—Ointment of marshmallows, two ounces ; incorporated
with the yolks of two eggs ; then add

Restorative balsam, one ounce ;

Balsam of capivi, one ounce ;

Oil of juniper, two drachms ; when all the ingredients
are well incorporated, mix them in a pint of warm
ale, and give it fasting.

This drink will open all obstructions of the urinary passages, and promote a free discharge by urine, as well as cleanse and heal the ulcerations. It generally mitigates the symptoms in one day's time, when this is the case, it will be proper to repeat it every morning, for three or four times, in order to carry off all remains of the disorder.

SECTION XXIV.

Of Worms.

Worms are of three sorts, viz. *botts*, *teretes*, or the round worms, and the *ascarides*.

Botts are bred in the stomach of horses, and often occasion convulsions. They appear very large, and much resemble maggots, with small sharp prickly feet along the sides of their bellies, by which they adhere closely to the parts where they are bred. Those of the stomach are commonly of a red colour, but in the strait gut they are white; the *botts* in the strait gut generally appear in the month of May or June; the *botts* in the stomach generally appear at the latter end of a dry summer, when the springs are very high, and the water muddy, and swarms with insects. The other sort is more troublesome than dangerous. The signs are either when the horse looks lean, jaded, and thrives not with his food; or he is sometimes griped; he often strikes his hind feet against his belly, and voids worms with his dung.

The cure of the *botts* in the stomach may be effected by taking the calomel ball (No. 4, p. 6) over night, and the following, next morning.

(RECIPE, No. 52.)

TAKE—Barbadoes aloes, eight drachms;
Powdered colocynth, two drachms;
Gum myrrh, two drachms;

Oil of savin, two drachms ;

Ginger in powder, two drachms ;

Syrup of buckthorn, enough to form into a ball.

This and the calomel ball may be repeated once a week for three weeks, which will effectually destroy all the different sorts of worms in the stomach, guts, or intestines.—Or you may give the purging balls (No. 38, p. 49), in the morning, and omit the calomel ball over night.

The day before you administer either of the above medicines, give your horse in the morning a pint of linseed oil, and repeat the dose at noon, and at six o'clock in the evening. After the destruction of these kind of vermin, the horse's appetite and digestion generally are weak and bad ; the following drink must be given in order to strengthen the stomach and promote digestion.

(RECIPE, No. 53.)

TAKE—Gentian root, two ounces ;

Orange peel, two ounces ;

Camomile flowers, one ounce ;

Winter bark, one ounce ;

Jesuit's bark, one ounce ;

Prepared steel, four ounces ;

Rhubarb, one ounce ; cut or slice the rhubarb and gentian ; bruise the barks in a mortar ; then infuse the whole of the ingredients in one gallon of ale, and give one pint every morning fasting.

In two hours after, give a mash and warm water. The virtues of this drink deserve the highest commendation : it is good in every disorder attended with a slow fever ; also for horses that lose their appetite on a journey, or at other times.

SECTION XXV.

Of Strains in various Parts.

Strains most commonly proceed from the forcible extension of the muscles or tendinous fibres, and are attended with a degree of inflammation, more or less, according to the violence of the complaint.

When a horse is strained in the shoulder, he cannot get his lame leg forward with the other, but forms a circle with it when he trots: in order to cure—first bleed, then rub his shoulder twice a day with the following oils.

(RECIPE, No. 54.)

TAKE—Oil of turpentine, four ounces;

Spirits of wine, four ounces;

Spirits of sal ammoniac, four ounces;

Oil of origanum, one ounce;

Oil of linseed, three ounces;

Shake them all well together for use.

OR THE FOLLOWING.

(RECIPE, No. 55.)

TAKE—Oil of turpentine, four ounces;

Goulard's extract, one ounce;

Spirits of wine, two ounces;

Spirits of sal ammoniac, eight ounces;

Opodeldoc, four ounces;

Pale oil, two ounces;

Oil of origanum, one ounce;

Put these into a bottle, and shake them well for use.

Both these are very excellent in strains in the shoulder, stifle, whirlbone, &c.—rub the oils well in.

For a strain in the coffin-joint, I recommend *Leeming's Essence*.—Strains and bruises on the back-sinews are easily discovered by the swelling or inflammation, which extends from the back-side of the knee down to the heel, or by the lame leg appearing thicker than the other, or by a pressure of the finger and thumb on the part affected, which will make him flinch by the sensation of pain occasioned thereby. In this, let the tendon from the knee to the fetlock-joint, be well rubbed with the above oils; and afterwards a linen bandage, two or three yards long, must be rolled upon the tendons, in order to strengthen and brace them; but if the sinews are much swelled, and inflamed, foment the parts twice a day with the following fomentation.

(RECIPE, No. 56.)

FOR THE FOMENTATION.

TAKE—Camphor, one ounce; dissolved in four ounces of spirits of wine;

Goulard's extract, three ounces;

Spring water, boiled, three quarts ; let the water stand till new milk warm, then add all the other ingredients.

When the part has been well fomented, the aforesaid mixtures for strains must be well rubbed in, and afterwards a flannel bandage rolled round the leg, from the knee to the fetlock.

Strains about the knees and pasterns often proceed from kicks or blows, and are easily cured by rubbing the parts well with the above mixtures or oils, once or twice a day.—If there should be a callous remain after the inflammation is gone off, which is sometimes the case, it may be removed by the following blistering ointment.

(RECIPE, No. 57.)

TAKE—Marshmallows ointment, tar, bees-wax, each three ounces, melted together ;
Sublimate, in powder, half an ounce ;
Euphorbium, cantharides, each half an ounce, in very fine powder ;
Oil of turpentine, two ounces ;
Mix and stir them all together till almost cold.

Before this ointment is used, clip the hair entirely off over the callous, and rub the ointment in gradually, with a spatula or dull case knife.—After the first time, it may be rubbed in with the fingers, and repeated for seven or eight days together; when done the horse's head must be tied to the rack, to prevent him from gnawing the place with his teeth, and the litter must be taken away to hinder him from rubbing the blister off, before it takes effect, which is generally in six or seven hours. When the blister has done running the horse may be turned out to grass for two months; and if the callous does not subside in that time, he must be fetched up again, and the blisters repeated as before, till the cure is completed.

This ointment will dissolve all callous tumours, though ever so obstinate, if it is repeated as here directed.

SECTION XXVI.

Of Firing.

Firing is useful to strengthen and brace the relaxed sinews, but should never be applied till the inflammation is entirely removed.

The firing irons must be smooth thin and fine, the finer on the edge the better, and the lines on the sinews five in number, one down the main tendon and two on each side, about the distance of one inch from each other; the cross lines must be about three quarters of an inch asunder.—Great care must be taken that the irons do not penetrate through the skin, which would blemish the horse and run the hazard of laming him, particularly if near any tendon. As soon as he is fired spread the blistering ointment (No. 57, page 70) all over the part, with a spatula, for three mornings together; and when the blister has ceased running turn the horse out to grass for a fortnight or three weeks, till the scurf comes off, and then he may be fetched up and the following charge applied.

(RECIPE, No. 58.)

TAKE—Burgundy pitch, four ounces ;
 Black pitch, four ounces ;
 Mercurial plaister, one ounce ;
 Diachylon plaister, with the gums, two ounces ;
 Melt them all together, then add euphorbium and can-
 tharides, in fine powder, each two drachms, and stir
 them all together.

This charge must be spread all over the part affected before it is cold, and a piece of flannel applied over it whilst warm, and sewed on the fore part of the leg : but if a horse is fired only to strengthen the sinews or joints, it will not require the above treatment,—the following charge will be quite sufficient.

(RECIPE, No. 59.)

TAKE—Black pitch, four ounces ;
 Burgundy pitch, five ounces ;
 Oxycroceum plaister, two ounces ;
 Diachylon plaister, with the gums, one ounce ;
 Melt them all together, and apply it as the former charge.

When a charge is repeated the hair is generally grown long enough to have it applied without a flannel bandage, instead of which, use short wool and apply it before the charge grows cold.

SECTION XXVII.

Wounds in various Parts.

Wounds are of various kinds and situations, some are caused by cutting, or by pricking with forks or other instruments; others by bruising, tearing, staking, &c.

All wounds in fleshy parts must first be cleansed from the blood, and carefully searched with the finger, and if the entrance of the wound be too small for the finger, the skin must be cut open; or if the wound be large enough, the whole hand may be put in, in order to extract any extraneous bodies which might be left behind.—If the horse be staked, it will be proper to examine what sort of a place it was where he was staked, which will

enable you to judge rightly of the nature of the wound, its cure and consequence.—All wounds which are out of the reach of the finger, and are not wide enough for the hand, you may examine with a candle; for it is very improper to examine wounds with a probe in the fleshy parts. If the wound bleeds much from the incision of an artery or vein, dress it with the following styptic.

(RECIPE, No. 60.)

TAKE—Oil of vitriol, two ounces;

Corrosive sublimate, five drachms, in powder, shake them well together in a bottle, and keep for use.

The wound must be dressed with a skewer dipped in the above styptic, especially if a fleshy part, and not near any tendon or sinew. If you have not this styptic at hand, apply fresh stinging nettles bruised, to the wound as soon as possible, and bind them on with a bandage; if it still continues to bleed, apply the following.

(RECIPE, No. 61.)

TAKE—Fresh nettles, one handful, bruised in a mortar;

Blue vitriol, in powder, five ounces;

Vinegar, four ounces;

Wheat flour, sufficient to make it into a paste.

The wound should be filled up with this paste, and a pledget of hurds laid upon the mouth of it, and then bandage it on with a strong roller. This dressing must remain on the wound twelve hours, then dress it with the following mixture and ointment.

(RECIPE, No. 62.)

FOR THE MIXTURE.

TAKE—Restorative balsam, three ounces ;
Compound tincture of myrrh, two ounces ;
Shake them in a bottle for use.

(RECIPE, No. 63.)

FOR THE OINTMENT.

TAKE—Linseed oil, three pints ;
Olive oil, or sweet oil, three pints ;—one pint of each to be put in an iron pot or pan, that will hold at least one gallon ; then add four ounces of Armenian bole ; one pound of yellow wax ; and four ounces of red lead, in very fine powder ; set it over a slow fire, to simmer or boil slowly, stirring it constantly until it acquires a dark brown colour ; then add to it Venice turpentine, eight ounces ; take it off the fire, and strain it through flannel to the remainder of the oil, stir it constantly till nearly cold.

The horse must be thrown with the wound upwards: pour the mixture in so as it may reach the bottom of the wound, then pour in the ointment melted, so that it will run to the bottom. Then lay a pledget of hurds upon it, this done, stitch up the wound, if needful, with a fine shred of white leather, which is better than either silk or thread. Cut the stitches the second day, and let the dressing remain three days, then dress the wound first with the tincture as well as you can, with a feather dipped into it, then take a small tent of hurds, dip it in the ointment, and put it in the wound, but not too far. Should there be any swelling round the wound, rub some of the ointment well on, twice a day.

If the inflammation and swelling are considerable, and the wound does not digest kindly, a gangrene or mortification may ensue, unless some speedy application be made use of, such as the following fomentation.

(RECIPE, No. 64.)

TAKE—Wormwood tops, marshmallow leaves or roots, each one handful;

Boil them in three gallons of old urine.

The parts must be fomented two or three times a day, if the case requires it, and afterwards rub the following blistering oils over the part affected, and give the following drink.

(RECIPE, No. 65.)

FOR THE DRINK.

TAKE—Bark, one ounce;

Venice treacle, one ounce; to be given in a pint of warm ale.

This drink may be administered every six or eight hours as the horse requires; the blistering oils are prepared as under.

(RECIPE, No. 66.)

TAKE—Linseed oil, one quart;

Euphorbium, two ounces;

Cantharides, one ounce, each in very fine powder;

Shake them in a bottle for use.

They may be rubbed on twice or three times a day, till such time as the swelling abates, and the wound discharges its matter.

SECTION XXVIII.

Wounds in the Elbow, Stifle, &c.

Wounds in the lower limbs, as elbow, stifle, hock, fetlock-joints, knees, sinews, tendons, &c. should be dressed with healing and bracing medicines, such as the following.

(RECIPE, No. 67.)

TAKE—Restorative balsam, three ounces;

Egyptiacum, three ounces;

Compound tincture of myrrh, three ounces;

Oil of turpentine, one ounce;

Mix together, and keep in a bottle for use.

If this mixture cannot be poured into the wound, so as to reach the bottom, it must be forced into it with a syringe, and afterwards a bit of lint, cotton wool, or fine hurds clapped over the mouth of the wound to keep the medicine in until it has taken effect; and a plaister of the wound ointment (No. 63, page 76) spread on hurds, must be applied over the same, to

keep it from growing dry, which must be bandaged with a flannel or linen roller ; if the part be free from any inflammation, a linen one is the best.

Wounds in the stifle or elbow are very awkward to bandage with a roller, instead of which let a small tent of hurds be dipped in the above mixture, and put into the wound once or twice a day with a probe, or small quill. Wounds in these parts should never be linted longer than the matter runs. But if the swelling and inflammation be considerable, the part should be fomented twice a day with the fomentation (No. 64, page 77), and afterwards rubbed well with the blistering oils (No. 66, page 78), twice a day.

SECTION XXIX.

*Humours Oozing from the Joints, commonly called
Joint Oil.*

When the capsule or ligamental purse which surrounds the joint is divided, and the synovia

or joint is divided, and the joint oil is running out, the following mixture will be found very effectual in wounds of this sort.

(RECIPE, No. 68.)

TAKE—Ægyptiacum, three ounces;
Wine vinegar, two ounces;
Verdegris, in fine powder, two drachms;
Blue vitriol, in powder, four drachms;
Corrosive sublimate, in powder, two drachms;
Compound tincture of myrrh, and
Restorative balsam, each one ounce.

OR THE FOLLOWING.

(RECIPE, No. 69.)

TAKE—Lime water, one pint;
Lapis medicamentosus, or the medicinal stone, half an ounce;
Honey of roses, and tincture of myrrh, each one ounce;
Mix them together in a bottle for use.

A spoonful or two of either mixture may be thrown into the wound, by means of a syringe, twice a day, in order to restrain the discharge, by shutting up the mouths of the vessels.

A piece of flannel dipped in a strong decoction of oak bark and alum should be applied round the joint, and bound on tight with a proper compress and roller.—Where neither cartilage nor bone are yet eroded, this method will succeed and prevent the shooting out of a fungus, which usually attends wounds of the joints; and by preventing the free admission of air into the joint, may secure the cartilage and bone from future injury: but when from the fetidness of the discharge and the use of the probe, the bones are discovered to be naked and rough, all remedies are vain unless the rotten bone can be brought to separate or exfoliate; and then a stiff joint will be the natural consequence: but this is sometimes removeable by a strict application of the blistering ointment, No. 57, page 70.)

SECTION XXX.

Of Ulcers.

Ulcers are either external, or internal.—The internal proceed from a deprivation of the nutri-

tious juices, which are hindered from flowing to the extremity of the vessels; in which case a few alterative balls will be of great service: or if this does not succeed, mercurial physic may be given, and repeated at proper intervals.

An external ulcer, is a solution continually oozing from a soft part, for when it affects the hard part it is called a *caries*: ulcers or wounds so situated are often very troublesome.—The first method of cure is to get rid of the caries by cutting it clean out with a knife, then dress it well with a skewer dipped in oil of vitriol: and if the wound should bleed much, a handful or two of salt and two handful of allum leather shavings, may be applied to it and bandaged on fast, and remain on twelve hours; then the wound may be dressed with the ointment (No. 34, page 44) till it mends, and afterwards with an equal quantity of restorative balsam, and compound tincture of myrrh, applied with a feather; then take burnt allum and a little bole armenic mixed well together and sprinkle it all over the sore.

If the wound be too dangerous to cut with a knife, it will be better to eat it out with caustic in the following manner: if the callous be large,

holes must be made in it, and a lump of sublimate about the size of a bean put in each hole, and blocked up with dry hurds; this method must not be used near any tendon, for fear of laming the horse.—Take care as soon as the caustic comes out, which is generally in the course of a week, to dress the part as above.—Ulcers which appear on those parts where a bandage or roller may be applied, must be dressed in the same manner as for the joint oil. The following is very efficacious to cleanse ulcers in the tendinous parts.

(RECIPE, No. 70.)

TAKE—Restorative balsam, one ounce;
Tincture of euphorbium, six drachms;
Sublimate, in fine powder, two drachms;
Mixed together in a bottle for use.

Let this be applied in the same manner as the medicines for the joint oil.

SECTION XXXI.

The Bone-Spavin, Ring-Bone, and Splints.

Bone-Spavins are hard excrescences or swellings growing on the inside of the hock.—The Ring bone is a hard swelling on the lower part of the pastern, and it generally reaches round the fore part of the foot, in form of a ring; though sometimes it will only appear on each side of the foot, and then it is called the splinter of a ring-bone: it generally takes its rise from the joining of the great and little pastern bones, which causes a stiffness in the motion of the joint.—Spavins and Ring-bones in general are occasioned by strains, though the former may come by a blow, and the latter by a stub or tread in the winter, when the shoes are turned up for the frost,

Splints are hard excrescencies growing on the shank bone of a horse, of various shapes and sizes. When they grow large and press against the back sinews, they generally cause lameness or stiffness; others, except near the joint, seldom occasion

lameness.—The cure is nearly the same in all the above cases ; when the above complaints are first discovered they may be easily cured by the following mixture.

(RECIPE, No. 71.)

TAKE—Tincture of euphorbium, one ounce ;
Tincture of cantharides, one ounce ;
Spirits of sal ammoniac, two ounces ;
Oil of origanum, one ounce ;
Sublimate, half a drachm ;
Oil of turpentine, one ounce ;
Shake them well in a bottle for use.

Let this mixture be rubbed on with the fingers for half an hour, for six or eight mornings together : it operates by sweating and blistering the parts, opens the pores and makes way for the oil of origanum and spirits of sal ammoniac, even to penetrate through the ligamental purse which surrounds the joints ; and by that means, not only cures the above complaints, but very obstinate strains in any part.

In very obstinate cases, where the callous is large and the part full of pain, the following method must be attended to.—The hair must always be clipped off before the medicine is applied ; the

callous must be pricked through as full of holes as possible, with an instrument sharp at the point and thicker upwards in proportion: let a bit of cork be fixed to it by way of gauge, that it may go through the callous but no deeper; this done, let the part be well bathed with vinegar, and as soon as the blood is stopped, apply the following blister.

(RECIPE, No. 72.)

TAKE—THE BLISTERING OINTMENT—(No. 57, page 70.)

Oil of vitriol, two ounces;

Origanum and common salt, each two drachms;

Spirits of sal ammoniac, four drachms;

Mix them carefully together for use;

This blister must be worked in with a spatula, half an hour together, by a little at a time, and repeated every morning for five days together.—After the first time of using it, the ointment must only be spread on and a bit of lard rubbed round the edge, to prevent it spreading any further.

When this treatment is finished and the blister is dry, the horse may be turned out to grass for three months; and if any lameness still remains,

he must be brought up, and the blister repeated as before.—This method will cure Spavins, Ring bones and Splints, of three or four years standing.

SECTION XXXII.

Of the Curb.

The Curb proceeds from the juncture of the same bones as the spavin, and rises on the back part of the hind leg a little below the hock, where it forms a considerable tumour: when timely taken the cure is easily performed, by cooling and bracing applications, such as those used for strains in the back sinews: if it be of long standing, hard and full of pain, apply the blistering mixture as directed for Spavins; otherwise firing must be made use of.—When a curb is fired, let the irons be thin and smooth on the edge but not too hot: the irons must be run all round the outside of the curb, so as to form it in the middle of the circle; then fire three strokes downwards, one down the main tendon, one on each side, and one

in the same manner as firing on the sinews: apply the same blister in the like manner as is used after firing the sinews. The horse must always have proper rest and be turned out to grass.

SECTION XXXIII.

Tumours or Imposthumes.

Tumours or Imposthumes, are swellings which arise from external injuries, or internal causes: those arising from external accidents, as blows and bruises, must first have the part well rubbed twice a day with the following mixture

(RECIPE, No. 73.)

TAKE—Opodeldoc, two ounces;

Spirits of sal ammoniac, three ounces;

Oil of turpentine, one ounce;

Oil of origanum, six drachms;

Spirits of wine, one ounce;

Mix for use.

If the part will admit a bandage, let a flannel dipped in the mixture be rolled on; but in bruises where the extravasated blood cannot be dispersed, the best way is to open the skin, and let out the grumes, which may then be dressed with the ointment in the same manner as wounds.

When critical tumours or swellings arise from internal causes as fevers, &c. they must not be dispersed except they fall on the lower parts, as the pastern, or coffin-joint, so as to put the horse in danger of being foundered: in this case, the fomentation (No. 56, page 69) should be applied three times a day, and a flannel wrung out of the same be bound on, in order to keep the joint constantly breathing.—But if the swelling appears under the jaws, behind the ears, on the poll, withers, or in the groins, it must be encouraged with the ointment, and a poultice made of rye flour or ground oatmeal boiled in milk, to which add hog's lard enough to keep it supple; or it may be fomented with a sufficient quantity of wormwood tops, marshmallow leaves or roots, elder-flowers, and ale dregs, three times a day: as soon as the matter is formed the tumour may be let out with a lancet, and afterwards dressed with the ointment referred to above, till a good matter appears and

the swelling subsides ; let it then be healed with equal parts of restorative balsam, compound tincture of myrrh, and ægyptiacum, smeared on with a feather, and a little burnt allum may be sprinkled on the sore ; and if proud flesh should appear whilst it is dressed with the ointment, the wound may be touched with a little butter of antimony.

SECTION XXXIV.

The Poll Evil.

The Poll Evil is an abscess near the poll of a horse, formed in the sinews between the poll-bone and the top vertebræ of the neck ; it generally proceeds from blows, hurts or strains by drawing, or sometimes a critical translation of matter in fevers ; the last is most difficult to cure.

If it proceeds from external violence, it may be often cured by rubbing the part once a day with the following mixture.

(RECIPE, No. 74.)

TAKE—Spirits of Sal ammoniac, four ounces ;
Oil of Spike, one ounce ;
Oil of Bricks, one ounce ;
Oil of Worms, one ounce ;
Spirits of Nitre, one ounce ;
Spirits of Wine camphorated, two ounces ;
Bole Armenic, three ounces, in fine powder ;
Dragon's blood, three drachms, in powder ;
Shake the ingredients well, in a bottle, for use.

Let it be well rubbed on, and afterwards bleed and give the diuretic ball or drink for greasy heels, every third day, three or four times.

If the swelling does not begin to abate in a fortnight's time, the blister (No. 57, page 70) may be rubbed on once every other day, three or four times, which will soon disperse it, or bring it to a suppuration : soon as matter is formed, it must be opened with a sharp knife, made for the purpose of opening wounds ; there is no danger in cutting if you miss the tendon or sinew, which runs under the mane, to avoid which let the horse's nose be twitched, and lifted up to slacken the tendon, for if his nose be hooked in,

the tendon will be so confined down, that it will be difficult to get the finger under it : at about an inch and a half from the mane put in your knife and examine the part with your finger, then lifting up the tendon with the same, cut up to the poll-bone, and from thence along the side of the mane as far as it is hollow or the ulcer goes.

It is easily known how far the ulcer extends before the swelling is cut, for so far as the swelling reaches it is always ulcerated under the tendon; when you are cutting do it by a little at a time, and constantly feel with your finger where the tendon lies : if both sides be bad they must be treated in the same manner, this done, the fingers may be run along under the mane, in order to find whether there be any rough or decayed bones left behind, which may be taken out with a drawing knife. When the above is performed, let the wound be dressed with the following styptic.

(RECIPE, No. 75.)

TAKE—Oil of vitriol, two ounces ;

Sublimate, four drachms ;

Shake them well in a bottle.

The wound must be well dressed with a skewer dipped in the said styptic, and afterwards with the following mixture.

(RECIPE, No. 76.)

TAKE—Restorative balsam, compound tincture of myrrh, and oil of turpentine, each three ounces ;
Mix them together.

As soon as the wound is dressed with the above styptic, two or three dossels of tow may be dipped in the mixture, and put into the wound ; let them remain eight hours, and then taken out and dress it with the following mixture.

(RECIPE, No. 77.)

TAKE—Ægyptiacum, spirits of wine, oil of turpentine, each four ounces ;
Oil of vitriol, two ounces ;
Oil of organum, three drachms ;
Red præcipitate, four drachms ;
Mix them well together for use.

Before the mixture is used the abscess must be well cleansed with a sponge, and then plenty of the mixture poured in, and take a pledget of hurds dipped in the ointment (No. 34, page 44)

and put it in the wound ; dress it once a day till well.—If the mixture should not be sufficient to keep down fungous or proud flesh, it must be touched with the aforesaid styptic. The horse must not be turned to grass till he is thoroughly cured, and then grass will be of service.

The following method of cure is copied from *Bartlet*.

(RECIPE, No. 78.)

TAKE—Corrosive sublimate, verdegriis, finely powdered, and roman vitriol, of each two drachms ;
Copperas, half an ounce ;
Oil of turpentine, and train oil, of each eight ounces ;
Rectified spirits of wine, four ounces ;
Mix them together in a bottle.

(RECIPE, No. 79.)

TAKE—Verdegriis, half an ounce ;
Train oil, half a pint ;
Oil of turpentine, fourteen ounces ;
Oil of vitriol, two ounces ;
Mix them together.

The last is milder than the former : the method of using both is this ; after the abscess is well

cleansed with a sponge, dipped in vinegar, put a proper quantity into a ladle with a spout, and when it is scalding hot, pour it into the abscess and close the lips with one or more stitches; this is to remain in several days, and repeated till the matter grows thick and lessens. The former will give the least pain and generally succeeds.

SECTION XXXV.

Of the Fistula, and Bruises in the Withers.

This disorder generally begins on the top of the withers, small at first but soon enlarges and spreads on each side.—It commonly proceeds from bruises or pinches of the saddle, and unless timely care be taken, will terminate in very obstinate ulcers, or fistulas. If it be owing to a bruise, and the skin not broken, let the swelled part be rubbed twice a day, with the mixture (No. 54, page 68). This done, take a large forkful of horse-dung from the dunghill as hot as possible, and apply it to the swelling, with a

rug, and surcingle girthed over it, which will disperse it in a few days. But if the swelling arises from a critical translation of matter in a fever, this mixture must be omitted, and the swelling assisted, to bring it to a pus or matter, by rubbing the part morning and night with the following ointment, and the hot dung applied as above.

(RECIPE, No. 80.)

TAKE—Hog's lard, four pounds;

Oil of turpentine, two ounces;

Oil of vitriol, one ounce;

Mix them together carefully lest they should fire.

This method will soon break the tumour;—when the wound is thus broken, it must be opened with a knife, to prevent any matter being confined in it; care must be taken to avoid the ligaments which run along the neck to the withers. This done, let it be dressed with the styptic (No. 75, page 93), and afterwards with the mixture (No. 76, page 94) as there directed twice a week. As soon as a good matter discharges, and the swelling subsides, it may be healed by smearing the raw part with a feather

dipped in the restorative balsam, and an equal quantity of burnt allum, and bole armenic, mixed together, and sprinkled over the wound.

Warbles are small hard tumours, which appear on the horse's back, chiefly about the saddle, and proceed from heats and colds in travelling. The cure may easily be performed by rubbing the warbles once or twice a day, with the mercurial ointment for sheep. A sitfast generally arises from a pinch of the saddle and collar. Let the parts be rubbed once a day with the above mentioned sheep ointment, and if the skin turns horny, it must be cut out, and the place dressed with the restorative balsam, and afterwards the above powder strewed on it.

SECTION XXXVI.

The Grease, Crown Scab, and Rat-tail.

The Grease is a disorder well known. It affects horses of a gross constitution, and is owing to a relaxation of the vessels, or bad disposition

of the blood and juices, chiefly owing to the negligence of the groom; as keeping the limbs clean and dry is a great preventive against this disorder. The effect is a swelling of the limbs, and sharp eruption, which discharges a stinking matter. When the horse is first observed to swell in the stable, and subside or go down, on being exercised, let care be taken to wash them very clean every time he comes in with soap and chamber-lee, vinegar and water, &c.; and the parts afterwards rubbed for a considerable time. The rubbing with the hand may be repeated three or four times a day, in order to prevent the stagnation of blood, and humours obstructing the vessels in those parts. After rubbing with the hand, let the parts be rubbed with the following mixture.

(RECIPE, No. 81.)

TAKE—Camphorated spirits of wine, four ounces;

Spirits of sal ammoniac, two ounces;

Bole Armenian, one ounce;

White vitriol, one ounce;

Mixed together in a bottle.

The above remedy will brace the fibres, strengthen the vessels, and prevent horses from

greasing at the heels. Horses that grease at the heels, must first have all the hair clipped off as bare as possible, and their heels washed with burnt chamber-lee; then lay a poultice or two made of boiled turnips and lard on the heels. When the heels have been poulticed for a day or two, rub the parts well with the following mixture or wash.

(RECIPE, No. 82.)

TAKE—Lime water, four quarts;

White vitriol, and burnt allum, of each six ounces,

Blue vitriol, four ounces, all in fine powder;

Ægyptiacum, four ounces;

Stir the whole well together till the powders are dissolved, then put them in a bottle, and cork it fast for use.

When the heels have been well dressed with the above, a pledget made of hurds, and spread with the following heel ointment, must be applied on the part which greases, and bandaged on with a flannel roller, or an old stocking leg. This done, let it be bandaged a second time with beggar's inkle or listing.

(RECIPE, No. 83.)

FOR THE OINTMENT.

TAKE—Honey, one pound; add white lead, roch allum, and white vitriol, each half a pound;
Verdigris, one ounce;
Green copperas, one ounce; all in fine powder;
Oil of vitriol, one ounce; work the whole with train oil to a proper consistence.

The above dressing must stay on forty-eight hours, and then the mixture and pledgets repeated again, and so on till a cure is effected. At the same time give the following diuretic drink or ball.

(RECIPE, No. 84.)

THE DIURETIC DRINK.

TAKE—Yellow rosin, in powder, six ounces;
Juniper berries, bruised, two ounces;
Nitre, in powder, one ounce;
Caraway seeds, in powder, two ounces;
Mustard powder, one ounce;
Mixed together and given in three half pints of cold ale.

This drink must be given in the morning fasting, and the horse must eat nothing for two hours after, then give him cold water, and meat as usual; the day following give him as much water as he will take; walk him out frequently. Let this be repeated every third morning in the same manner as above, three or four times, or give the following balls.

(RECIPE, No. 85.)

THE DIURETIC BALLS.

TAKE—Crocus of antimony, and nitre, each one pound;

Rosin, four ounces; all in fine powder;

Castile soap, one pound, sliced;

Balsam of capivi, four ounces;

Oil of juniper, two ounces;

Beat them all together in a mortar, with flour, or any of the horse powders, till they can be formed into balls the size of a pullet's egg.

One of these balls may be given every other morning during a week or fortnight, and the horse treated in the same manner as with the before-mentioned diuretic drink.

The Crown-scab, is a humour that breaks out round the coronet, producing a scurviness and itching, and may be cured as the grease.

Rat-tails generally take their course from the pastern to the middle of the shanks, and are so called from the resemblance they bear to the tail of a rat. Some are moist, others dry ; the moist must be treated as the grease, and the dry with the mercurial ointment for sheep.

SECTION XXXVII.

Wind-galls, and Blood or Bog-spavins.

The Wind-gall is a flatulent or windy tumour, that yields to the pressure of the finger, which being removed, returns to itself. These tumours are visible to the eye, and seated on both sides of the back sinew, a little above the fetlocks, on both fore and hind legs.

First, clip off the hair, and rub the blistering ointment in (No. 57, page 70) every morning, three or four days together. In a few days after this, turn him out to grass for a month or six weeks, which will take the tumour entirely away, or if he be fired and blistered, and then turned out to grass, they are almost sure not to return again. A Bog-spavin is generally, though falsely called a blood-spavin.

This is a tumour which appears on the inside of the hock, which gives way to the pressure of the finger, but recovers its shape on the removal of it. The bog-spavin arises from a strain in the hock-joint, occasioned by hard riding, drawing, leaping, &c.

Sometimes young horses will strain themselves by galloping, in their pastures, by which the capsular ligament that surrounds the joint is divided, and the synovia discharges itself into the bend of the hock where it is contained in a cyst. In this disorder the horse goes stiff or lame in the joint, and if the hand is laid on the inside of the bend of the hock, it will feel somewhat hotter than usual, or if his leg be lifted up, shook,

or turned about, the bones will grate together, as if they were bare; let the following mixture be applied.

(RECIPE, No. 86.)

TAKE—Opodeldoc, four ounces;
Oil of turpentine, three ounces;
Spirits of sal ammoniac, six ounces;
Put them in a bottle for use.

Rub the spavin once or twice a day, for two or three weeks, with the above mixture. This procedure will generally cure what is called blood-spavins in their worst state, if not of very long standing. When the spavin is of a long date, a small orifice must be made with a lancet, about the middle of the tumour, and a little on one side of the vein, by which means it will discharge a quantity of slimy matter, of the colour of whey; soon as the matter is squeezed out with the finger and thumb, take an equal quantity of ægyptiacum and restorative balsam; mix them together, then force it into the wound with a syringe, and rub the blistering ointment (No. 57, page 70) all round the outside of the wound, three mornings together. The wound must not be dressed after the first time, and the horse should be kept in

the stable a week or ten days, until the wound is quite healed. This done, he may be turned out to grass for six or eight weeks. If he should be then weak, firing will be of great service to him, if it be done neatly; and the blistering charge be applied on the joint (No. 58, page 73), and then turned out to grass, the same space of time as before, or longer. This method will cure bog-spavins, though ever so long standing. If the spavin be opened when it first appears, it is of dangerous consequence; the matter then discharged is of a brownish colour, and sometimes tinged with blood. But if it has been a good while standing there is no danger in opening the tumour.

SECTION XXXVIII.

The Mallenders and Sallenders.

Mallenders and Sallenders are synonymous distempers; the former appears in the bend of the knee, the latter in the bend of the hock, and

discharges a sharp corrosive undigestive matter. Mallenders often occasion lameness and stiffness in the joints, and also stumbling. The cure must be performed in the same manner as for a horse that greases at the heels: First, clip off the hair, then wash the parts with old chamber-lee, and let the horse stand half an hour after; then rub the parts well with the mixture (No. 81, page 99), and then spread the ointment (No. 82, page 100) on tow, to be applied on the cracks, and bandaged on with a flannel roller, or one made of an old stocking; dress them once a day till they are well. The horse must be kept in the stable during the time of cure, and two or three diuretic balls (No. 85, page 102) given him. Before he is dressd, take off the bandage, &c. and give him proper exercise and water, and dress him when he comes in again as before.

SECTION XXXIX.

The Lampas.

The Lampas is an excrescence on the first bar in the roof of a horse's mouth; the cure is generally performed by burning it out with a hot iron, but take care to burn no more out than the first bar in the roof of his mouth, and not too deep. Afterwards wash his mouth with common salt, and the cure will be completed.

SECTION XL.

Of the Eye-teeth, by some called Wolves-teeth.

This is a small tooth appearing on the top jaw, at the distance of about half an inch or an inch from the grinders: sometimes on one side

and sometimes on both sides; these teeth are said to affect the eyes more or less at different times. They should be knocked out with a hammer and chisel made for that purpose.

SECTION XLI.

Of the Grinders.

A horse which is kept on dry meat will sometimes slaver at the mouth. If he champs his hay and corn, and puts it out again, it arises from some fault in the grinders, otherwise from the canker. In the former case it is easily discovered by examining the internal parts of the mouth, as there will sometimes be great holes cut with his grinders in the weaks of his mouth. First, file his grinders quite smooth with a file; one smooth side of which must be next the weaks of his mouth. This done, dress his mouth once or twice a day with the mixture for the canker in the mouth, (No. 87, page 111).

SECTION XLII.

Of the Barbs.

Barbs are knots of superfluous flesh under the tongue, which are easily discovered by drawing the tongue aside. The cure is to be effected by cutting them close off, and rubbing the parts with a little salt, nor should it be neglected when a discovery has been made of the disease, for it will hinder a horse from drinking, and if he does not drink freely he cannot eat heartily, consequently he cannot do well.

SECTION XLIII.

Of the Canker in the Mouth.

The Canker is sometimes owing to the bridle being rusty, and known by little brown specks appearing on the tongue. But when it does not

proceed from the bridle-bit, it appears in small white specks, and in time will spread over the greatest part of the mouth, and occasion irregular ulcers. The cure is as follows.

(RECIPE, No. 87.)

TAKE—Vinegar, half a pint;

Burnt allum, one ounce;

Honey of roses, one ounce;

Bole armenic, four drachms;

Spirits of salt, two drachms;

Sal prunellæ, four drachms;

Mix and shake them well together in a bottle for use.

With this mixture the horse's mouth should be dressed twice a day, morning and night, in the following manner.—Let a bit of tow, or soft linen rag be tied to one end of a cane about the thickness of a small finger, and half a yard long, and dipped in the mixture; pass this up the mouth and work it well about the parts affected, let him fast an hour after, and then give him his meat as usual.

SECTION XLIV.

Of Narrow Heels.

Narrow heels are generally a natural defect in horses, but sometimes they are the effects of bad shoeing.—Some Farriers are very faulty in applying their drawing-knives to the feet, which they pare till the blood starts: this method is very injurious, and causes many horses to founder in the feet, from which nothing should be pared but what is rotten and foul: and not too much hollowed in shoeing.—If the feet be hard and dry they should be filled up every night with the following composition, but the horse should never work with any stuffing in his feet: let it be taken out before he goes to work, and fresh put in when he returns.

(RECIPE, No. 88.)

TAKE—Tar, four ounces;

Lard, four ounces;

Horse turpentine, one ounce;

Melt them together in an iron ladle.

Dip a few hurds in this mixture and stop the horses foot with them, then put splints cross-way with each end under the shoe.

When the horse's hoofs are dry and brittle, it is a common though an injurious practice to oil and grease them, which has ruined many a good foot. The best method is to wash the horse's hoofs with old urine, once a day : this will strengthen the hoof and prevent it from cracking or breaking after the shells are first rasped off, and will so rust the nails that a clinch will not start from the time of shoeing till he wants it again.

The *Narrow Heels* may be treated in the following-manner.—Take a firing iron, not too hot, and fire from the point of the heel as far as the hoof is drawn in, between the hair and hoof but rather more upon the hoof. This must be done upon both in-heels and out also if they bind in : fire tolerably deep towards the heels.—As soon as the firing is finished dress the parts with the following mixture.

(RECIPE, No. 89.)

TAKE—Restorative balsam, one ounce ;

Compound tincture of myrrh, one ounce ;

Ægyptiacum, two ounces ;

Oil of turpentine, one ounce ;

Mix and shake them in a bottle for use.

A small tent of tow dipped in the above mixture must be laid lengthwise upon the wound, with a pledget of dry hurds upon it, and bandaged on with a roller of flannel or an old stocking ; repeat the dressing once a day till the wound is dried, then turn him into a straw-yard and let him continue the winter season, which is most suitable for a cure. In about six weeks after the above operation is performed, a new hoof will appear round the coronet, betwixt the hair and hoof, and as it grows down will be a quarter or half an inch wider than the old one.

SECTION XLV.

Of Hoof-bound.

A horse is hoof bound when the hoof is very tight round the instep between the hair and hoof,

and wide at the bottom resembling the shape of a bell. It is occasioned by setting on broad and hollow shoes, cutting down the toes too much, &c.

If the above complaint be taken in time, it may be cured by easing the shoe and stopping the foot with the preparation (No. 88 page 112,) and then rubbing the blistering ointment (No. 57 page 70) all round the instep, just above the hoof. In a few days after, let the horse be turned out to grass, for the space of two or three months.

SECTION XLVI.

On Quittors.

A quittor is an ulcer formed between the hair and the hoof, generally on the inside quarter of the horse's foot.—It arises from treads, bruises, and stubs; or from gravel which works upwards, and lodges near the coronet. If the symptoms be slight it will be easily cured with the following mixture.

(RECIPE, No. 90.)

TAKE—Verdegris, half a drachm;

Honey, one drachm and a half;

Sublimate, one drachm ;

Vinegar, two drachms ;

Reduce the sublimate and verdegris to a very fine powder, then put the ingredients all together into a gallipot, simmer it by, or on a slow fire, constantly stirring, till it acquires a light green colour, and is about the consistence of cream.

A small tent of lint or tow, dipped in the above mixture must be laid on the part or wound, and a pledget of dry hurds upon it and bandaged on with a roller made of an old stocking ; repeat the dressing every sixth day as long as necessary : it will frequently cure the first time dressing. This mixture will cure all kinds of treads &c, on the feet of horses, and is equally efficacious for the foul in beasts feet.

When the Quittor is ulcered or piped, use the following.

(RECIPE, No. 91.)

TAKE—Verdegris, half a drachm;

Honey, one drachm and a half ;

Sublimate, six drachms;

Vinegar, two drachms, powder and mix as above.

First lay upon the part a poultice made of boiled turnips and hog's lard, let it lay on twelve hours at least : when removed, let a tent of lint or tow be dipped in the last mixture, and forced to the bottom of the ulcer or pipe, with a skewer, then lay some tow upon the hole and bandage as before; repeat the dressing once in eight days till well.—I have never known this remedy to fail, when applied as above directed, curing the worst of quitters, I therefore think it unnecessary to mention any other recipes.

SECTION XLVII.

Of the Running Thrush.

A running-thrush is an impostume in the frogs of horses' feet, which have fleshy heels, or ragged and rotten frogs.—The frog must first be pared as far as it is hollow, and the part rubbed with the mixture (No. 82 page 100) then lay a small pled-

get of hurds dipped in *Ægyptiacum*, upon the thrush, and a pledget dipped in tar over the whole splinted fast under the shoe. This must be repeated once every day till the horse is well, and the horse rubbed once a day with the mixture after the cure is finished to prevent the disorder returning.—Diuretics for the grease muss also be administered during the time of cure.

SECTION XLVIII.

Of the Canker.

A Canker in the foot generally proceeds from the running-thrush, which spreads and runs under the sole of the foot, till it falls off and turns rotten and putrid.—First pare the foot down, then with a knife bent in the form of a half-moon pare out the rotten and putrified flesh, which grows on the bottom of the foot, taking care not to cut deeper than the rotten part, lest it should endanger the coffin-bone.—This done put on the shoe with two nails on each side, and take a handful

of common salt and lay it over the part which is cut, then wedge it fast up with hurds, which will stop the bleeding; the next day take off the dressing, and examine whether the hoof presses on a tender part, if so it must be pared quite thin, or if hollow underneath it may be taken out; which, if necessary, must be done every time it is dressed. Rub the parts with the ægyptiacum, and dip small pledgets of tow in it, and lay them upon every part affected with the canker; afterwards lay a pledget of hurds dipped in tar over the dressing, and dry hurds over the whole. The dressing must be splinted to the foot as fast as possible, as that will be a means of bringing about a cure sooner. The foot must be dressed once a day as before directed; and if any fungous flesh appears, sprinkle a little verdegris, in powder, over it. Sometimes in this disorder the horse looses his hoof, and then it becomes very troublesome to cure. For when the shoe cannot be made fast, it is impossible to fasten the dressing; unless a boot be made on purpose, and so many cloths applied will heat the foot, and make it worse than before. Therefore, to prevent the hoof from falling off, let it be well dressed every day with the mixture (No. 81, page 99) used for the grease, before the foot is dressed,

and the cankered part, and all round the instep must be dressed with the mixture. This method will preserve the hoof from falling off, and with the help of the above instructions, every skilful person may be able to effect a cure on the worst kind of cankered feet whatsoever.

SECTION XLIX.

Of the Bites and Stings of Venomous Creatures.

The bite of a viper may be cured by rubbing the parts, or the whole limb, a considerable time with sallad oil, repeating it twice a day.

Stings of hornets, wasps, or bees may be cured by rubbing an equal quantity of vinegar and sallad oil, on the parts affected, or with tincture of opium.

SECTION L.

Of the Bite of a Mad Dog.

The following recipes have been much recommended for the bite of a mad dog.

(RECIPE, No. 92.)

TAKE—Musk, sixteen grains;

Native and factitious cinnabar, each twenty-five grains;

To be taken in a glass of arrack, three nights together,
and the night preceding, the full of three successive
moons.

(RECIPE, No. 93.)

TAKE—Garlic heads, and rue leaves, dried and powdered,
three ounces and a half;

Pewter, in powder, two ounces and a half;

Oyster shells prepared, three ounces and a half;

Savin leaves, dried and powdered, two drachms: to be
taken in ale.

OR,

(RECIPE, No. 94.)

TAKE—Turbitb mineral and camphor, of each equal quantities,
viz. from half a drachm, to a drachm;

Philonium, two drachms ;

Mix them in a ball, and give it to the horse every other night for a fortnight, if it does not make his mouth sore, and slaver.

As soon as this symptom is discovered, the medicine must be refrained from, till it is removed ; and then resumed. It should be repeated in smaller quantities according to the above directions.

SECTION LI.

Of Gelding.

Gelding, is an operation well known to most persons. The usual way is to cauterize the extremities of the spermatic vessels, and fill up the scrotum with digestive ointment melted, or with common salt. But when the stones are required to be take from a full-grown horse, great care and ingenuity is required. Soon as the scrotum is opened, and the stones are discharged, a strong wax thread must be tied round the spermatic

vessels, and the testicles cut off, which must be afterwards dressed with the digestive ointment : and the swelled parts rubbed twice a day with the ointment (No. 34, page 44). If the swelling and inflammation are considerable, give the horse one ounce of bark, and half an ounce of nitre, in a pint of warm ale, twice a day : and foment the parts twice a day with the fomentation (No. 64, page 77). These methods will preserve the horse from any dangers which happen in all such kinds of operations.

SECTION LII.

Of Docking.

Docking, or cutting off a horse's tail, is an operation almost universally known, and seldom attended with any danger. The operation is best performed with an engine, used for that purpose by the farriers. When the tail is taken off, let it be gently seared with a hot iron polished, till the blood is stopped. Then lay a bit of rosin

upon it, and touch it with the iron till it dissolves, and runs over the end of the strut. This is all that is requisite in docking a horse; though sometimes an inflammation and gangrene may succeed, especially if the tail is fleshy or stunted too close to the rump. In this case, no time must be lost. Give the mixture (No. 28, page 39), twice or three times a day, fomenting the part twice a day, and rubbing it with the blistering mixture (No. 66, page 78). This method must be strictly observed till the inflammation abates, and his appetite returns.

SECTION LIII.

Of Nicking.

Nicking is an operation to make the horse carry his tail neat and elegant. This operation must not be performed when the weather is too hot or too cold, but in a mild and temperate air. First, let the horse be thrown down, and about four or five nicks made in his tail, according to

the length of it. The first nick must be made about an inch and a half, or two inches from the rump; the others at a proportionate distance from each other. The greatest art in nicking is, to cut deep enough on each side of the under part of the tail, as there are two tendons or sinews on each side, the ends of which will spout or rise up after they are cut. Some persons take a small quantity of these tendons out, in order to prevent their growing together again; but this is absurd, since, if the horse's tail be well pulled, the tendons never unite again. Soon as the tail is nicked, small pledgets of tow must be dipped in an equal quantity of tincture of myrrh and oil of turpentine, shaken together, and applied; then a pledget of dry hurds must be put over them, and tied on with laps of tow, or old cloth, that the blood may be stopped. When this is done, let the horse be walked ten or twenty minutes, or until he is cool; then put him in the stable, and the day following at night, cut the laps, without peeling the dressing off; next morning take off the old dressing, and dress it with the following, until such time as he is well.

(RECIPE, No. 95.)

TAKE—Ægyptiacum, four ounces;

Oil of turpentine, three ounces; shake them well together.

A small dossel of tow, dipped in this mixture, must be applied on every nick, and tied up with laps of tow, or old cloth, as before; then put the horse into pullies. But as all the art of making a horse to carry his tail well consists in this, care must be taken in the execution. The pullies should be fixed about a yard above the horse's shoulder; in order to bring the end of his tail within five inches of the croup. The method of fixing it must be according to the position of the horse. If he is placed on one side of his standing more than the other, the pullies must be fixed to that side to keep his tail straight. Let the said dressing be repeated every other day, for eight or ten days; afterwards anoint the wounds once a day with the mixture, and then sprinkle a little powdered rosin upon them, which must be done till he is well. The horse must be taken out of doors every other day, and trotted. If he does not carry his tail straight, the pullies must be altered to one side according as he stands in the stable.

SECTION LIV.

Of False Quarters and Sand-Cracks.

A Sand-Crack, is a little cleft running in a straight line down the hoofs; and sometimes, through the horny part, which, in process of time, often grows out of itself. But if the crack passes through the ligaments which join the hoof with the coronet, it must be treated in the following manner. First, rasp the cleft thin and wide, close to the hair, and with a firing iron moderately heated, fire straight across the cleft, between the hair and the hoof, and dress it in the same manner as the false quarter.

A False Quarter, is when one part of the hoof is destroyed by some bad and long continued quittor, which renders the quarter useless, and the horse frequently lame. The following will be found an effectual cure in these cases. First, rasp the quarter quite thin throughout, and then with a firing iron, gently heated, fire exactly between the bar and hoof, beginning at the corner

of the heel, and going forward half an inch, or an inch, upon the sound part of the foot, and fire it pretty deep through the ligament which unites the hoof and the coronet. This being done, dress the wound with the ointment (No. 63, page 76) a week or ten days; then heal the wound with an equal quantity of ægyptiacum and restorative balsam, mixed together.

Let the horse be kept in the stable till the wound is healed; and afterwards turned out into a good straw-yard, to continue there all winter: this operation being always best performed at the latter end of the year.

In six or eight weeks after the horse is fired, a new hoof will appear all round the coronet as far as he was fired. When it is grown half an inch down, and any ways out of form, it must be brought into shape by rasping, and washing with old urine. Soon as the quarter is grown down, and the horse begins to work again, every time he is new shod, his feet must be washed with old urine, in order to rust the nails, and strengthen the hoof.

SECTION, LV.

Of Wounds in the Feet, from Nails, Gravel, &c.

Horses, in general, are more subject to wounds in the feet than any other part of the body, and, for want of timely care and proper judgment, it often proves of bad consequences; these parts being naturally tender and exposed to inflammation. When matter is formed in any part of the foot, it must be discharged; otherwise the bone, which is of a spongy nature, soon becomes affected, and the whole foot is in danger. The most dangerous part in a horse's foot, when stubbed, is the point of the frog, being near the coffin bone. When any foreign bodies are lodged in the feet, such as nails, stubs, thorns, &c. the foot must be pared with a drawing-knife to the quick, all round the part, and the bodies extracted as soon as possible. If the wound be slight, a little oil of turpentine poured on it, and set fire to with a hot poker, is commonly a present cure; but if it penetrates so deep as to af-

fect the coffin bone, no time should be lost in the cure : for which the following remedy is very suitable.

(RECIPE, No. 96.)

TAKE—Restorative balsam, one ounce ;
Tincture of myrrh, one ounce ;
Oil of turpentine, half an ounce ;
Mix and shake together for use.

Let a small tent, dipped in this mixture, be applied to the wound, which if slight, must only be laid over the mouth of it, and a little of the following stopping mixture applied on the dressing.

(RECIPE, No. 97.)

TAKE—Tar, four ounces ;
Bees-wax, four ounces ;
Hog's lard, four ounces ;
Horse turpentine, one ounce ;
Melt them together for use.

When the wound has been dressed with the above mixture, a small quantity of the stopping must next be melted in an iron ladle, and the

foot stopped up with hurds dipped in it, and two splints put across to fasten it on. The above is an effectual cure for all wounds in the feet, proceeding from pricks in shoeing, or from gravel, stubs, thorns, nails, &c. First, the foot must be well cleared with a drawing-knife, and the piece or particle extracted with a pair of nippers, if any remains behind. Should this prove unsuccessful, and the horse recovers not of his lameness, and the matter discharged be thin, bloody, or offensive in smell, the wound must be opened with a drawing-knife, to the bottom, and then dressed as before directed. If any nail should penetrate the joint of the foot, so as to endanger the cartilages which surround the joint, and cause the synovia, or joint oil to discharge, it is very difficult to cure. In cases of this sort, no time must be lost in dressing the horse in the manner directed in (page 81), on joint oil. Some country farriers are prone to a very bad fault in the management of a horse that is lame in the foot. After it has been pared quite thin, and the horse so far recovered from his lameness as to be able to work, the farrier generally wedges the lame part, under the shoe, with hurds, to prevent the gravel working to the wound. This is very wrong, as the pressing of

the hurds fills the lame part full of pain, and the gravel is sure to work between the hoof and the hurds, so as to make it almost impossible to be extracted, and the horse then becomes as lame as he was at first. To prevent which, a horse when lame in the foot or feet, must never work with any kind of stuffing in them, but should be shod so as to ease the part, and that the gravel may wear out. When ever he comes from work, the feet must always be well washed, and dressed as before mentioned.

SECTION LVI.

Of the Colt-Evil.

The Colt-Evil, chiefly affects young stoned colts, which have full liberty with mares before they are able to cover them. This disorder generally causes the skin to fret off the horse's yard, and the sheath to swell. It is chiefly owing to dirt, or nastiness lodging in the parts, which

may be removed by washing them clean with a little warm vinegar and sweet oil ; but should the yard be much swelled, let the following fomentation be used twice a day.

(RECIPE, No. 98.)

TAKE—Marshmallow roots, one handful;

Alder leaves, one handful;

Boil these in three quarts of milk till reduced to two.

The parts affected must be fomented with two pieces of flannel, squeezed out of the above medicine every morning and evening, hot as the horse will bear it ; and the swelled parts rubbed with the ointment (No. 32, page 43), or the fomentation (No. 56, page 69), may be applied twice a day till he is well.

The excoriation, or fretting of the glands, may be gently rubbed once every two days, with a little of the mercurial ointment for sheep. The oozing from the yard, is properly a gonorrhœa simplex. It is chiefly owing to high feeding in young horses, and a relaxation of the glands and seminal vessels, brought on by frequent emissions. This disorder may be cured by giving

the horse the purge (No. 3, page 5). When the purging has ceased, a diuretic ball may be given every other morning for a fortnight ; if the case be desperate, the mixture (No. 16, page 24) may be given as there directed. But if the above method should fail, two or three spoonful of the injection (No. 13, page 20) may be thrown up his yard, once or twice a day with a syringe, till the cure is completed.

SECTION LVII.

Of the Anticor, or Feltoric Tumour.

This disorder begins with a malignant swelling in the breast, and extends along the belly as far as the sheath. It is attended with a fever and inflammation, great depression, weakness, and loss of appetite. This last symptom is owing to the inflammation, which sometimes affects the whole gullet and throat, and is very dangerous. To effect a cure, give the purge (No. 27, page 39);

and when the purge has done working, give the drink (No. 29, page 40) every morning till the swelling abates, and he is well. The swelled part must be rubbed with the blistering ointment (No. 57, page 70) once a day for three days together ; and then with the blistering oils (No. 66, page 78) once or twice a day, till the swelling subsides. In this case, the horse must have warm water and mashes twice a day, till he recovers. It is too common to open the tumour in several places with a lancet, or a hot pointed cautery, and dress it with digestives. But this is always attended with danger ; the blood being in a bad state, it is very difficult to bring the wound to a good digestion, and if not, generally causes a gangrene and mortification about the wounds, and sometimes the death of the horse,

SECTION LVIII.

Of the Founder in the Feet.

Founder in the Feet, arises from cold after violent exercise, drinking cold water, riding into

ponds, &c. when overheated, which brings on a fever, and, for want of proper management, settles down into his feet, and is improperly called the *chest-founder*. When the horse is thus affected, after violent exercise, &c. administer the following ball.

(RECIPE, No. 99.)

TAKE—Calomel, two drachms;

Opium, one scruple;

Jalap, two drachms;

Make these into a ball, with the conserve of roses, and give it to the horse as soon as possible.

In an hour after taking the ball, give the purge (No. 27, page 39), and two hours after the purge, a mash of scalded bran and oats, and warm gruel, twice a day. After the physic has done working, let the horse be treated as in other fevers. If he is bound, let the clyster (No. 7, page 11) be administered once every day, and the parts round his fetlocks and pasterns rubbed with the mixture (No. 30, page 41), or fomented with the fomentation (No. 56, page 69). If the above methods are attended to, they will prevent the fever settling in the feet. When a horse has been foun-

dered a considerable time, small lumps of the size of a finger, or a thumb end, will frequently rise on each side of the heel, upon the coronet; these may be called splints of a ring-bone, arising from pain in the feet. The cure must be performed by clipping off the hair quite bare, and the lumps on each side of the foot pricked in the same manner as in bone-spavins; and dressed with the blistering mixture (No. 57, page 70), once every morning for a week. Soon as the blisters have done running, the horse should be turned out into a good straw-yard, and run there three months. If the horse is only foundered in one foot, and it is not sunk, or less than the other, the sole may be drawn, and the shoe put on; and the foot be filled up with nettles and salt, each one handful, pounded in a mortar, and a pledget of hurds laid over the dressing, and fastened with splints, till the bleeding is over. Then clip off the hair all round the coronet, and fire him neatly, rubbing the blistering ointment (No. 72, page 87) over the part affected, three or four mornings together; always remembering to tie up the horse's head to the rack, and take the litter from him, to prevent him rubbing off the blister. When the sole of the foot begins to strengthen, the horse may be turned out into a straw-yard, or foddered in a close.

Some horses, which have been foundered a long time, are used to have their feet pared down, and the soles drawn thin, in order to cool the feet; but in this state, the air penetrates and dries to such a degree, that the foot is considerably lessened thereby; nor is there any method to throw out the foot again, but by firing between the hair and hoof, round half the foot, at one time, and the other half as soon as a new hoof appears where he was fired. The sole being the main support of the horse's foot, should never be pared more than the loose or hilly parts out. For if the feet be ever so strong, sound, or good, and the sole constantly pared and drawn thin with a drawing knife, every time he is shod, he will become lame, tender-footed, and in time as bad as one that is foundered.

SECTION LIX.

Of Rowelling.

Rowelling, is useful in some cases. When this operation is performed, the skin must be cut, so as to get a finger or a thumb into it,

which must be worked about till the skin is parted from the body three or four inches round, then dip the rowel in a little digestive ointment melted; or melt together an equal quantity of horse turpentine and hog's lard for the purpose. When the rowel is put in, two or three tents of tow, dipped in the same, must be applied along with the rowel; and let the horse have warm water for three days. When a good matter appears, take out the tent, and turn the rowel every two or three days. A fortnight, or three weeks, is deemed a sufficient time to keep the rowel in.

Rowelling, is useful in old strains of long standing, either in the shoulder, stifle, or whirlbone. When a rowel is used in the shoulder, it must be about three or four inches below the joint of the shoulder, and the same distance below the whirlbone; and in the stifle, rather in the inside of the thigh. The use of rowelling in the above cases, is to relax the capula or ligamental purse, which surrounds the joints, and makes way for the jellied blood, which may be lodged there from the severity of the strain. It is likewise proper in diseases of the head, viz.

head-achs, sleepiness, staggers, and disorders of the eyes; also in achs, pains, internal inflammations, &c. A horse must never be purged, or bled till a good digestion appears; nor rowelled, if he be lean, surfeited, or hidebound.

END OF PART THE FIRST.

On Horned Cattle.

PART THE SECOND.

SECTION I.

Fellon, Epidemic Cold, or Influenza.

IT in general proceeds from the sudden change of the atmosphere, from a warm and moist air, to a piercing cold and dry wind; which powerfully affects the whole animal frame, by closing up the pores of the skin, and in a great measure, stopping perspiration. In cases of this kind, the hide becomes thickened, and the hair looks staring and appears to stand the wrong way on the animal's back.

Cows are the most liable to be afflicted with the Influenza, owing to the different states or changeableness of the weather, and also from their being more tenderly managed, by being housed during the winter.—The long prevailing north and north easterly winds, at the spring of the year, often produce dangerous and sometimes fatal diseases.

The symptoms produced by taking cold, are a heaviness in the head and dullness in motion; with weeping eyes, a sudden depression of the milky secretions: and if the hand be pressed upon the chine, or any part of the back, the animal will instantly give way: this is generally called the chine fellow, and is best understood by that name in the country.—At other times the joints are more particularly affected than any other part, and then it is called the joint-fellow.—Old cows, are the most subject to this last complaint, especially a short time before calving. It is attended with considerable pain and weakness; if the animal lies down she is seldom able to get up without assistance, till after calving: this occasions much trouble to the owner; which if proper care had been taken might have been prevented.—When this happens, until the time of calving,

they generally require some assistance at rising, in all other respects they appear well and eat their food as usual.

In the cure of colds of every description, the first attempt should be to remove the cause, by giving to the animal a warm cordial drink, which acting as a stimulant on the stomach and intestines will give fresh motion to these parts, and will enable nature to resume her former course.—Either of the following drinks will be found to answer the desired effect with proper management.

(RECIPE, No. 1.)

TAKE—Restorative balsam, one ounce and a half:

Treacle, four ounces;

To be given in one quart of warm ale.

(RECIPE, No. 2.)

TAKE—Sweet Fennel seed, Cummin seed, Aniseed, Long Pepper, Turmeric, and Diapente, each one ounce, in powder.—This must be put into a pitcher, with four ounces of Treacle, then pour one quart of boiling ale upon the whole, cover it down till new milk warm, then give the drink to the beast.

By this method the whole virtue of the seeds will be retained, which chiefly consists in the essential oil.—By giving a few of either of these drinks to cattle, that have been reduced from scanty food, during a long winter, the animals have been so much revived thereby, as to resume nearly all their original life and vigour. In cases of this kind where the system appears debilitated, one of the above drinks should be given every day for four days together; but if the animal be in tolerable condition, the drinks may be repeated every third day.

In two hours after giving the drink, let the animal have a good mash made of scalded bran, and a handful or two of ground oats or barley meal, added to it; and give warm water that day.

In slight colds during the summer, these drinks may be given to cattle while in their pasture; and where it can be made convenient, let them fast two hours after, and then graze as usual. It is very necessary to examine the sick animals every day, to watch them while they dung and stale, and to see whether the body be of a proper heat, and the nose or muzzle of a natural breeze.—If these be regular, there is not much danger. If

feverish symptoms should appear, which frequently happen, the animal will become costive; and if not speedily relieved, will be in danger. In such cases let the following purging drink be given.

(RECIPE, No. 3.)

TAKE—Glauber's salts, one pound;

Ginger, in powder, two ounces;

Treacle, four ounces.

Put all the ingredients into a pitcher, and pour three pints of boiling water upon them; when new milk warm give the dose.

In most cases, this drink will be found sufficient to purge a full grown animal of this kind. If it should fail in its operation in sixteen or twenty hours, let one half of the above quantity be given every night and morning until the desired effect be obtained. By strict attention to the above method of application a fever may be prevented, and the animal speedily restored. It should be recollected that after the intestines are sufficiently evacuated, it will be proper to repeat the cordial drinks (No. 1 and 2, page 143) a few times.

SECTION II.

Inflammation of the Lungs.

This disease, amongst horned cattle is frequent, and is produced by a variety of causes. Cold dry harsh winds are severely felt, by shutting up the pores of the skin, and checking perspiration. It is frequently brought on by drinking cold water when over heated. It has sometimes been brought on by turning them into fresh pastures, when their stomach is over-charged with herbage, in consequence of which the load upon the lungs becomes very oppressive; the sizzly and viscid part of the blood obstructs the vessels, and brings on a troublesome cough and hoosing. These symptoms indicate the lungs to be affected. While the discharge from the nose and mouth continues to be pretty copious, the inflammation makes but little progress; but, as soon as this discharge is stopped, it rapidly increases, and if not timely checked, will soon terminate in the animal's dissolution. Symptoms of

an inflammation taking place are discovered by the body becoming alternately hot and cold; the extremities for the most part cold; especially the ears, horns, and feet: if the beast be in low condition, weak, and much debilitated, bleeding is seldom necessary; but if in high condition, and the fever increases, and the body feels of a hot, dry, and parching heat, and the breath be the same; if the white of the eyes appear to be much inflamed, and tinged with a yellow hue, bleeding will become highly necessary, and from two to four quarts of blood may be taken away, according to the strength and condition of the animal; and, if found necessary, let it be repeated. A small quantity may be taken every day.

Sometimes, this disease puts on a flattering appearance, the fever and heat appear small and scarcely perceptible. At other times, it seems rapid in its progress. The cause of this disease appears in a great measure to proceed from a deficiency in the animal of performing its regular course, in carrying on a due circulation through all the vessels. The redundant state of the blood, through these impediments, becomes sur-charged with the pituitous lentor of the

blood and humours : so the glands cease to secrete the bile, which is not poured into the intestines, but becomes deposited on the skin. Hence is produced the jaundice, which is known by the yellowness of the eyes and different parts of the body. The cure must be attempted according to the symptoms already stated. The costive state of the animal's body, which, in general, accompanies this disease, must be strictly attended to. Let the purging drink (No. 3, page 145), be given as there directed, and the body be afterwards kept open by giving one half of the drink in the morning and the other half in the evening, every second or third day as occasion may require.

If the fever continues, after the intestines have been evacuated, it will be proper to take some blood from the animal, and the quantity must be regulated according to the disease and habit of body. The following drink may be given every day except on those days when the purging drink is given.

(RECIPE, No. 4.)

TAKE—Sweet fennel-seed, cummin-seed, grains of Paradise,
Peruvian bark, each one ounce, in powder;
Castile soap, sliced, one ounce ;

Salt of tartar, one ounce;

Treacle, two ounces;

Mix for one drink.

This may be given in a quart of warm ale, and repeated as above stated. Warm water, mashes, and gruel must be regularly given two or three times a day. This drink will be found to operate powerfully in removing the disease, and to promote insensible perspiration, as well as in dissolving and evacuating the phlegm in the ventricles and intestines, while they will also open and cleanse the vessels in the lungs, and bring them to a regular performance of their functions. After a strict application of the aforesaid remedies, and of the management according to the rules already laid down, if any symptoms of the disease should still remain, it will be proper to give the following drink.

(RECIPE, No. 5.)

TAKE—Valerian root, in powder, two ounces;

Dried squills, in powder, one drachm;

Gum myrrh, in powder, half an ounce;

Balsam of sulphur, and balsam of capivi, each one ounce; beat up with the yolk of an egg;

Spirits of nitre, one ounce ;
Tincture of opium, half an ounce ;
Mix for one drink.

Let this drink be given in a quart of mild warm ale, and treat the beast with mashes and warm water as before. This drink may be repeated every third day for three or four times.

SECTION III.

The Yellows, or the Jaundice.

This is a common disease among Neat Cattle, and proceeds from the obstruction of the gall-bladder, and the cystic duct. The gall is a yellow liquor, separated in the liver, and collected in the gall-bladder, its great use is to mix with the chyle, to rouse the peristaltic motion of the intestines, and to finish digestion. This saponaceous juice corrects the acidity in the stomach and bowels ; its salutary effects are powerfully felt in all parts of the body.

The Yellows or Jaundice, consists in a diffusion of this bile throughout the whole body, and is favoured by every thing that obstructs its passage into the duodenum.

This disease is first observable in the white of the eyes, which appear of a yellow tint, and as it increases, the whole skin becomes impregnated with the same yellow hue; the ears, tail, eyes, and mouth are the parts where it is most conspicuous. In every stage of the disease, the animals are attended with weakness, and great debility of the nervous system; a listlessness to move, and want of appetite. When in the pasture, they wander about by themselves, by the side of hedges or fences, in a dejected manner.

These appearances sufficiently indicate the disease. Milch Cows are the most subject to it in the spring, and latter end of the year; although they are not exempt from it in all other times. The most dangerous state in this disease is, when a schirrous liver is the cause; little hopes can then be entertained of a permanent cure. The fluctuating state of the weather has a powerful effect upon the animal frame, in retarding or promoting the cure; care should also be

taken to house them at all unfavourable seasons. —As soon as this disease makes its appearance, it may be removed by administering the following drink.

(RECIPE, No. 6.)

TAKE—Horse spice, one ounce;
Turmeric root, in powder, two ounces;
Castile soap, one ounce;
Saffron, three drachms;
Madder, one ounce;
Rhubarb, half an ounce;
Diapente, one ounce;
Salt of tartar, half an ounce;
Mix for one drink.

Slice the soap, and put the whole into a pitcher, then pour a quart of boiling ale upon the ingredients, and cover them down till new milk warm, then give the drink. It may be repeated two or three times every third day. I have never yet known the above drink to fail curing in common cases. If the disease does not give way to the above treatment, but still keeps on the increase, give the purging dring (No. 3, page 145). After this has had the desired effect, give the

above drink, and repeat it every third day two or three times, if needful, or you may give the following.

(RECIPE, No. 7.)

TAKE—Balsam of capivi, and salt of tartar, each one ounce;
beat them together in a mortar; add valerian root and
Peruvian bark, in powder, each one ounce;
Treacle, two ounces;
Mix for one drink.

Let this drink be given in a quart of warm gruel, and repeated, if necessary, every other day. It will be proper to keep the body open through every stage of this disease; for if costiveness be permitted, the fever will increase; and if not timely removed, the disorder may terminate fatally.

As soon as the cause is removed, the animals may be restored to their former health, by giving them two or three of the drink (No. 1, or 2, page 143), and if milch cows, quickly restore them to their former flush of milk.

SECTION IV.

Inflammation of the Brain.

This disease is commonly called by the name of *Frenzy*, and is most prevalent in the summer season. Inflammation of the Brain, may proceed from the heat of the sun, from fevers of different kinds, or from an inflammation taking place in some particular part of the body, and is transferred to the brain. The cause is too great an efflux of blood, pressing upon the temporal arteries; from which an increased action of the vessels takes place.

The symptoms that usually preceeds a true inflammation of the brain, are a kind of madness, attended with ravings, and constant watching, slow respiration, and a strong pulsation in the temporal arteries. The animal appears in a very fierce state, as if seized with a turbulent kind of madness; the eyes appear much inflamed, and ready to start from their orbits; the beast often falls down of a sudden, and rises again with the

same volatility, until nature is quite exhausted; a constant trembling and starting of the tendons; a dry and harsh skin; a suppression of the urine; grinding of the teeth, and a total want of rest. These last are unfavourable symptoms.

The Frenzy or Inflammation of the Brain, is sometimes occasioned by wounds in the head, that are attended with violent inflammations of the vessels, and if not speedily terminated may end in a mortification, which is often the case, and that in a few days. Wounds in this state require the most speedy application of the most powerful medicines; for the proper administering of which (see Section XXVI. on Wounds).

In the cure of this disease, the following method must be attended to: First, lessen the quantity of blood by frequent bleeding, which may be repeated daily, if required; and by which the great efflux of blood upon the temporal arteries will be lessened and much retarded. The following drink is suitable for this disease.

(RECIPE, No. 8.)

TAKE—Glauber's salts, one pound;

Emetic tartar, one drachm;

Camphor, two drachms;

Treacle, four ounces ;

Mix, and put the whole into a pitcher, and pour three pints of boiling water upon them : when milk warm, add tincture of opium, half an ounce. and give the dose.

This drink will, in general, operate briskly in the space of twenty or twenty-four hours, if not, let one half of the drink be given to the beast every night and morning, until the desired effect be obtained. This will be found a very powerful drink as a purge, and to open the obstructions by which means the offending cause will quickly be removed. After the intestines have been sufficiently evacuated by the above drink, give the following powders as long as any inflammatory symptoms remain.

(RECIPE, No. 9.)

TAKE—White antimonial powder, two drachms ;

Nitre, one ounce ;

Camphor, in powder, and tincture of opium, of each two drachms ;

Mix for one dose.

These powders must be given in a pint of warm gruel ; and repeated every morning and evening

until the fever begins to abate; afterwards, once a day will be sufficient. It sometimes happens in this disease that an inflammatory swelling takes place upon the jaws, and on different parts of the head. In cases of this kind there is a difficulty in swallowing; and, as the inflammation increases, the jaws become gradually closed so as not to be opened without an instrument*. Inflammations and contractions in these parts require medicines of the most powerful kind; the following will be excellent for the purpose.

(RECIPE, No. 10.)

TAKE—Soft soap, six ounces;

Spirits of sal ammoniac, four ounces;

Oil of origanum, two ounces;

Spirits of hartshorn, rectified spirits of wine, and tincture of opium, of each eight ounces.

Mix the soap and spirits of hartshorn well together, in a stone or marble mortar, then add the other ingredients, and mix them all well together, and keep them in a bottle well stopped, for use.

* This is termed a Locked-jaw.—The proper treatment of this malady is stated in Section XIX.

This liniment will be found a powerful medicine in all antispasmodic diseases of this kind. The parts afflicted must be well rubbed with it every night and morning, or oftener if needful. The animals, under all these afflictions, can seldom of themselves take a sufficient quantity of nourishment to keep them alive. It will therefore be found necessary to horn a sufficient quantity of that kind which produces the most nutriment. The following will be found adequate to the purpose.

TAKE—An equal quantity of linseed, in powder, and oatmeal, make them into a stiff gruel, by just giving them a boil in a sufficient quantity of water, and when new milk warm, from two to four quarts may be horned into the beast, or more if necessary, three or four times a day; the gruel may be sweetened with treacle, and one ounce of nitre, and a little salt added if thought proper.

By these means the strength of the animal will be supported; and it will be the better enabled to undergo the operation of medicine. This is one of the severest diseases to which horned cattle are liable; and after the symptoms disap-

pear, it leaves them in a low, debilitated state. The following restorative will be found useful to such cattle as have been reduced by severe disease.

(RECIPE, No. 11.)

TAKE—Peruvian bark, in powder, one ounce ;

Nitre, and salt of steel, each half an ounce, in powder ;

Cummin seed, and aniseed, in powder, each half an ounce ;

Restorative balsam, one ounce ;

Treacle, four ounces ;

Mix for one drink, and give it in a quart of warm gruel.

This drink should be repeated every third day for three or four times, or more if necessary.

SECTION V.

Murrain, or the Pestilential Fever.

This disease, it has been often remarked, made great destruction among horned cattle, from the

the years 1744 to 1770. And I may further add, that few years pass away without its appearance in one part or other of this kingdom, and with different degrees of virulence. There is every reason to suppose, that this distemper is a contagious one, and is drawn in by the breath at the nose and mouth of the animal, from others that are infected; and if the latter were timely separated, there is no doubt but that the further progress of the infection would be prevented. This disease is of the putrid kind; the first symptoms that appear are, a shivering and trembling of the limbs, a decrease of appetite; the head and neck protruding; a difficulty of swallowing; the eyes appear dull and languid, and often shed tears; together with a continual scouring. In a few days the breath, and dung of the diseased beast become fetid and very offensive. The steam that perspires from the body, the breath and the excrements affect the air for some distance; the head, horns, and breath are very hot; the body and limbs cold; the mouth affected with blisters. This disease is one of the most violent that can befall neat cattle. From the violence of the fever an inflammation quickly takes place in the stomach and intestines. It may also be discovered by the appearance of a morbid tumor, either across the loins, or some other part of the

body; and if the hand be pressed upon the swelling, it makes a crackling noise somewhat similar to that of a bladder when dry and full of wind.—In this stage of the disease a mortification generally takes place, which though it leaves but little hope of recovery, yet does not diminish our duty in using every means in our power to terminate the progress of so destructive a malady.

The more favourable symptoms are as follow: the fever is checked in its progress; the tumour gradually fills and forms good pus, and is discharged in a proper manner. As soon as possible after the disease is discovered, let the purging drink (No. 8, page 155) be given, and repeated as there directed, until the desired effect be obtained.—It sometimes happens after giving this drink, that the animal throws it up again; which is chiefly owing to a quantity of acid being formed in the stomach, from a load of indigested food: when this is the case, give the purging drink, (No. 21, page 175) which will correct the acid in the stomach, and for the most part produce the desired effect; if not, it must be repeated till the load is removed.—If the fever is not checked, after the stomach and intestines are evacuated, let two quarts of blood be taken from the beast,

or more if its strength will admit of it, and the powders (No. 9, page 156) be given as there directed. By strict attention to the aforesaid treatment, the fever in general will be removed in the course of a few days; should it however continue to increase, and proceed gradually to a state of putrifaction, let the following drink be given.

(RECIPE, No. 12.)

TAKE—Alum in powder, four ounces;

Nitre, and Peruvian bark, in powder, of each one ounce;

Treacle, six ounces;

Mix for one drink.

Let these ingredients be put into a pitcher and a quart of hot gruel poured upon them; when new milk warm, add half-a-pint of vinegar, and give the drink.—This may be repeated once a day, or every other day as circumstances may require.

As this disease proceeds to a crisis, the most difficult time is from the sixth to the ninth day; if the animals survive the last, they will in general get the better of the disorder: but they are left

in a low and debilitated state, for which it will be proper to give them the restorative drink (No. 4 page 148) and repeat it as there directed.

As soon as any swelling begins to make its appearance in any part of the body, let the following mixture be well rubbed in all over the part affected.

(RECIPE, No. 13.)

TAKE—Nitre, four ounces;

Vinegar, one quart; dissolve the nitre in the vinegar,
then add,

Oil of vitriol, one ounce;

Tincture of opium, two ounces;

Camphorated spirits of wine, six ounces;

Mix them together in a bottle for use.

The parts affected must be well rubbed two or three times a day with this mixture, it will be found a powerful application in repelling or stopping the progress of this black mortifying tumour.

When the inflammatory tumours terminate in a mortification, the approach will be known by the following symptoms.—The inflammation loses

its redness, and assumes a dusky or livid colour, the tension of the skin goes off, and the skin feels of a flabby nature, the complexion of the tumour changes from a livid to a more dark or black appearance; the pulse quick and low, accompanied with cold and clammy sweats.—When these symptoms appear there are but little hopes of a recovery. The more favourable symptoms are when the tumefied parts, are gradually proceeding to a state of suppuration: in this case the restraining mixture must be omitted, and the following emollient oils well applied on the part, two or three times a day.

(RECIPE, No. 14.)

TAKE—Oil of Elder, four ounces;

Oil of turpentine, three ounces;

Oil of linseed, four ounces;

Opodeldoc, and tincture of Opium, each two ounces;

Mix, and put them in a bottle for use.

The bottle should be well shaken every time the mixture is used.—As soon as matter is sufficiently formed, it may be let out with a lancet, or a knife suitable for the purpose, and afterwards dressed with digestive medicines.

The animals suffering under this complaint, are in general severely affected with a sore mouth, full of blisters and much inflamed.—The following mixture will be suitable for it.

(RECIPE, No. 15.)

TAKE—Alum, in fine powder, two ounces ;

Sal prunella, and Bole Armenic, in powder, of each
one ounce ;

Honey, two ounces ;

Wine vinegar, one quart ;

Mix and keep them in a bottle for use.

The mouth must be well washed with this mixture, two or three times a day, in the following manner.—Take a stick or cane about two feet long, and fold round one end of it a small lump of linen, or fine tow : secure it well with strong thread ; then shake the bottle well, and pour a sufficient quantity into a pot, dip the end of the cane or stick that has the linen or tow fixed on it, into the gargle-mixture, and apply it all over the mouth.

Neat cattle suffering under this severe disease, are seldom able of themselves to take a sufficient

quantity of nourishment, therefore let them have gruel horned into them, three or four times a day ; and as soon as they will eat, give them a mash of scalded bran or malt, with two hands-full of ground corn mixed in it —In time, proper care and good nursing, will bring them about.

SECTION VI.

Black Leg, Quarter-evil, or Black-quarter.

The symptoms of this disorder, are in many respects similar to those of the Pestilential Fever, described in page 160.—It is however necessary to discuss this malady in a separate section, as it does not appear to be either infectious or epidemic, but is almost wholly confined to young cattle, from one to two years old.

The *Quarter-evil* chiefly affects such as are in the best condition: Milch cows or lean cattle of all descriptions are seldom seized with this disease,

and during the winter it is not known : the summer season is the time when it makes its appearance, and very often proves destructive to great numbers of young cattle, in different parts of the kingdom.

When the vegetable creation springs up in all its perfection, the young animals are not able to stand against such luxurious living:—the cause seems to proceed from a redundance or overflowing of the blood, which is very great, and frequently makes them drop down and die suddenly in a state of putrifaction.

The symptoms are a sudden depression of the whole animal frame, as if seized or struck with the palsy.—A swelling takes place immediately in some part of the body, as on the legs, shoulders, under the belly, or some part of the back ; when it appears on this last part towards the loins, it will be attended with most danger. It may be discovered by the crackling noise made by the swelling, when the hand is pressed upon it, and owing to a quantity of air being collected between the skin and flesh : the mouth and tongue will be full of blisters, from the extreme violence of the fever.

As soon as this disease makes its appearance upon the young animal, take from two to three quarts of blood away, according to age and size : two hours after bleeding, give the following purging drink ; which will be found of proper strength for young cattle from the age of one to two years old.

(RECIPE, No. 16.)

TAKE—Glauber salts, from eight to twelve ounces, according to strength and size ;

White antimonial powder, one drachm ;

Camphor, rubbed to powder with a few drops of spirits of wine, one drachm ;

Cumin seed, and Aniseed, fresh powdered, of each one ounce ;

Treacle, four ounces ;

Mix for one drink.

Let the ingredients be put into a pitcher, and pour upon them one quart of boiling water, cover the vessel down and let it stand till it is only new milk warm, and then give it.—If the animal be more than two years old, the salts may be increased in proportion till the quantity shall amount to one pound. This will be found a powerful

drink for removing the inflammatory symptoms, which attend diseases of this kind, as well as to evacuate the stomach and intestines: but if this should fail in purging the beast, in the space of twenty hours; it must be repeated, by giving one half of the drink every night and morning, until the desired effect be obtained; since without this there are but little hopes of recovery.——When this is accomplished, the following drink may be given once a day or every other day, as may be thought necessary.

(RECIPE, No. 17.)

TAKE—Alum, in powder, two ounces;

Sal prunella, in powder, six drachms;

Peruvian bark, in powder, half an ounce;

Gum myrrh, in powder, two drachms;

Aniseed, and Carraway seed, in powder, of each one ounce;

Treacle, four ounces;

Mix for one drink.

Let this drink be put into a pitcher, and one quart of boiling water poured upon the whole ingredients, cover them down until new milk warm, then add half a pint of wine vinegar, and give it

immediately. If the fever (attended with considerable inflammation in the parts affected) still continues to increase, it will be proper to omit the above drink, and have recourse to the powder (No. 9, page 156) and give them as there directed.—And as soon as the unfavourable symptoms disappear, the above drink may be resumed. All the tumefied parts must be well rubbed with the mixture (No. 13, page 163).—But if the tumour gradually proceeds to suppurate, it will be proper to encourage it by applying the emollient mixture (No. 14, page 164) as there directed; and the parts at the same time fomented with the following preparation.

(RECIPE, No. 18.)

TAKE—White poppy heads, of a good size, twelve in number;
Wormwood, fresh gathered, one handfull;
Linseed, bruised, half-a-pound;
Marshmallow roots, one handfull;
Slice the roots, cut the wormwood small, bruize the poppy heads, and boil the whole in two gallons of ale dregs.

Then take two or three large pieces of flannel, and wring them out of the liquor as hot as you

can, and apply them to the swelling: this will very much assist the formation of pus; and as soon as it is brought to a sufficient state of maturation, it must be opened with a lancet or a proper knife, and afterwards dressed in the same manner as other wounds of a like nature.—The mouth is in general affected with large blisters, which must be examined, and pricked with a lancet, and afterwards dressed with the mixture, (No. 15, 165) as there directed.

It will not be improper to lay before the reader a few observations, worthy of notice, respecting the prevention of this malady in those districts where it is accustomed to appear. Every possible precaution cannot be too strictly attended to, for preventing so destructive a disease among young cattle; for if they are once attacked their cure may be doubtful; such as thrive most are in general first attacked, and in the greatest danger.

As soon as this disease makes its appearance, upon any one of the herd, while in the pasture, let them all be brought out in the evening into a fold yard, and from two to three quarts of blood may be taken from each; according to its size, condition, and strength: let them remain there

till next morning, and then give to each beast the following drink.

(RECIPE, No. 19.)

TAKE—Crude antimony, in very fine powder, half an ounce ;
Nitre in powder, one ounce ;
Gum myrrh, in powder, half an ounce ;
Flowers of sulphur, two ounces ;
Treacle, four ounces ;
Mix for one drink.

Let this drink be given in the morning fasting in a quart of warm ale ; two hours after, the beast may be turned into the pasture : two or three drinks with bleeding, will in general be sufficient to protect them against the future approach of this disease, if repeated every third morning.—By adhering to the treatment laid down as above the disease may not only be cured, but may also be prevented.

SECTION VII.

Red Water, and Black Water.

This disease is common among neat cattle of every description, but more particularly attacks milch cows, than any other beast.

The Red water and Black water, seldom occur separately; the former I conceive to be the original disease, and the latter to be occasioned by the retention of part of the blood, about the orifice of the leaky vessel; which coagulates, and in a short time putrifies, changing to a black colour: this is in part washed away, every time the beast stales, and constitutes what is termed *Black Water*.

The origin of this disease is ascribed by different Authors to different causes; for instance, the taking cold when turned into low pasture grounds at the spring of the year; others attribute it to the change of pasture, or a scarcity of water in a long dry season; and some to the changeable state of the atmosphere: most or all of these causes may at times occasion bloody urine.

If the *Red Water* proceeds from any external injury, such as a violent strain across the loins, in consequence of another beast romping on them, or from a severe blow on that part, which brings on an inflammation of the kidneys and adjacent parts; the treatment must be as follows,—first bleed according to the age, strength, and size of the beast, from three to four quarts; about two hours after, give the following drink.

(RECIPE, No. 20.)

TAKE—Restorative balsam, two ounces;

Spirits of Nitre, one ounce;

Mix, and give it in one quart of warm ale.

This drink may be repeated every day, or every other day, as necessity requires: but when this disease proceeds from other causes, as already stated, it produces different effects.

An inflammation takes place upon the glands about the neck of the bladder; hence the small blood-vessels become ruptured, and the blood coagulates and lodges in the cavity about the neck of the bladder, and produces the two different kinds above mentioned.

When the change takes place from *Red* to *Black Water*, the animal in general stales free from either for several times; and in slight cases where blood is passed away with the urine, the beast does not seem to be affected by it: if a cow, she holds to her quantity of milk, and seems no worse.—But when the blood so passed away is considerable, and continues long, it reduces the quantity of milk and the animal itself to a very low state; and if some powerful remedy be not applied, the beast must inevitably sink under the pressure of the disease.

Bleeding is seldom, if ever necessary, as the quantity of blood is no more than sufficient: the cure must first be attempted by evacuating the stomach and intestines, for which the following drinks will be suitable.

(RECIPE, No. 21.)

TAKE—Barbadoes aloes, one ounce, to one ounce and a half;
according to the size and strength of the animal;
Roch alum, one ounce and a half;
Cochineal, one drachm; all in fine powder;
Spirits of turpentine, half an ounce;
Mix for one dose.

Let this drink be given in a quart of cold water. This is a powerful drink and generally cures without any other aid.

(RECIPE, No. 22.)

TAKE—Glauber salts, one pound ;
Nitre, and Cream of Tartar, in powder, one ounce ;
Ginger, in powder, two ounces ;
Treacle, four ounces ;
Mix for one dose.

Put these ingredients into a pitcher, and pour three pints of boiling water upon them : stir the whole, and when new milk warm, give the drink. This also is a very good drink for the purpose, and often cures.

The greatest danger which attends this disease, is costiveness, which either of the above drinks will be found amply sufficient to relieve.—But should they not have the desired effect, in removing the disease, give the following.

(RECIPE, No. 23.)

TAKE—Oil of vitriol, half an ounce :
Tincture of opium, half an ounce ;
Treacle, four ounces ;
Mix, and give it in two quarts of warm gruel.

This may be repeated once a day, if found necessary, until a cure be obtained.—There is a great number of other medicines made use of for the cure of this disease; but I do not know any to excel the above Recipes.

The animals should be kept from food, two hours before any of the above drinks are given, and also two hours after. They seldom require any particular kind of diet, as they are rarely, if ever, off their food; except they are attacked with a fever, in which case they are liable to become costive, and this is always attended with danger.

SECTION VIII.

Diarrhœa, or Rottenness.

This disease shews itself sometimes by copious stools of a slimy, bilious, and black nature, and at other times of a more frothy, greasy, and clay-like nature.

It may be caused by various circumstances: the most frequent are acidity, or putrescency of the aliments; acrid bile; pus, secreted from abscesses, and carried to the intestines; obstructed perspiration; putrid vapours; and the translation of the morbid matter of other diseases to the intestines. The Diarrhœa when of long standing, is always attended with danger; the frequent motion of the intestines, to eject or discharge their contents, quickly reduces the animal to a very weak and debilitated state, attended with loss of appetite; in consequence of which the foundation of an incurable disease will be laid, if not timely removed.

This disease is supposed by most authors to be occasioned by the severe effects of the north, and north-easterly winds, at the spring of the year; such winds have very great effect upon the constitution of cattle, that have been pined during the winter, in forwarding the disease.

The times when cattle are the most liable to be seized with the Diarrhœa, are the months of *April* and *May*; especially if the season be wet and cold, grass plentiful and of a sappy nature.—The relaxed powers of animal nature, are not able to

perform the office of digestion ; as they are too apt to overload the stomach : thus a large quantity of acid is formed there, and conveyed thence through the intestines, which produces slimy and bilious stools.—Here nature by her own effort endeavours to check its progress, by an effusion of the saponaceous juice of the bile, which is fixed for the purpose of correcting acidity and forwarding digestion, but in many instances it fails.

Cows after calving, are liable to take cold, when exposed in damp situations in severe weather, which frequently causes this disease.—The following are unfavourable symptoms :—the animal loses her appetite, dew-lap hangs down and has a flabby appearance, her dung runs off with a putrid and offensive smell, and as it falls on the ground, rises up in bubbles ; the hair all over the body appears staring. These symptoms indicate but little hopes of a speedy cure.

The animals thus affected should be taken from the grass, and put in a large cow-house, or open yard, where they can be sheltered from the weather ; and kept on dry meat, such as good hay, ground oats, barley and beans.—Take an equal quantity of any one of these three articles, and

add to them a similar quantity of linseed cake, this will make good food for cattle labouring under this disorder: a proper quantity should be given them at a time, two or three times a day; and if they are much reduced, and their appetite quite gone, a stiff gruel may be made of the same and horned into the beast, three or four times a day.—A strict attention to this method of diet, will convey a sufficient quantity of nutriment to the animal, so as to enable it to undergo the operation of medicine.

The cure of this disease must first be attempted by evacuating the stomach and intestines of those bilious and slimy excrements, that corrode and destroy the mucous lining of those parts: for this purpose the following will be found efficacious.

(RECIPE, No. 24.)

TAKE—Salt of tartar, one ounce;

Ipecacuanha, in powder, one drachm;

Barbadoes aloes, in powder, four drachms;

Castor Oil, four ounces;

Ginger, in powder, one ounce;

Treacle, four ounces;

Mix for one drink.

This drink is to be mixed in a quart of hot gruel and given when new milk warm.—It will be found a mild and valuable purge, for removing and carrying off whatever obstructions, may have caused this disease. In twenty-four hours, or when the physic has nearly done working, the following drink may be administered.

(RECIPE, No. 25.)

TAKE—Restorative balsam, two ounces ;
Ginger, in powder, one ounce ;
Tincture of opium, half an ounce ;
Mix for one drink.

This drink may be given in a quart of warm ale, and repeated every other day for four or six times. After repeated trials, I have found this drink to produce the desired effect ; but in case it should fail to cure the disease, it will be necessary to proceed to others.

(RECIPE, No. 26.)

TAKE—Prepared chalk, and prepared Oyster-shells, in powder,
each four ounces ;
Ginger, and gum kino in powder, each one ounce ;

Alum, in powder, two ounces ;
Tincture of opium, six drachms ;
Mix, and give them in a quart of warm ale.

This drink may be repeated every other day :
or the following.

(RECIPE, No. 27.)

TAKE—Rhubarb, in powder, one ounce ;
Alum in powder, two ounces ;
Sweet spirits of nitre, one ounce ;
Ginger and aniseed, in powder, each one ounce ;
Tincture of opium one ounce ;
Mix for one drink.

This may be given in a quart of warm ale, and repeated as above, as long as necessary. As soon as the progress of the disease is checked, and the animal begins to recover its strength, the cure may be greatly accelerated by giving the following astringent drink.

(RECIPE, No. 28.)

TAKE—Gum kino, in powder, half an ounce ;
Peruvian bark in powder, one ounce ;

Pomegranate shell, in powder, four ounces ;

Tincture of opium, half an ounce ;

Mix for one drink.

Boil the pomegranate in three pints of water ; and when new milk warm, add the other ingredients and give it.—This is a most excellent drink to brace and restore the relaxed powers of the animal ; and likewise to carry off the remains of the disease.—It will be proper to repeat the drink every other day, for three or four times.

SECTION IX.

Inflammation of the Liver.

This disease very frequently takes place among horned cattle ; it does not appear to be confined to any particular part of the liver, but sometimes affects the membranes only, or in its substance ; in the concave or convex sides thereof : but as the treatment in each case is the same, it will be of no consequence what part is affected.

The liver is of a glandular substance, and the largest to be met with in the animal body; its chief use is to secrete the bile.—Inflammation of the liver proceeds from various causes—sometimes external, at other times internal; but mostly from the latter.

Fat beasts, or such as are in good condition, are the most liable to be attacked with this disease, particularly in hot weather, when overheated by driving, or from gadding or running about in the pasture on very hot days; drinking cold water; or being exposed to sudden cold, after the body has been so heated.—Inflammations occasioned by external causes chiefly proceed from other cattle goring them with their horns; or from some violent blow or bruise, received by any other means.

The symptoms are chiefly as follow;—a violent pain and swelling about the short ribs on the right side, attended with difficulty in breathing; loathing of food; great thirst; with a yellowness, extending all over the body, and on the white of the eyes; a palpitation or beating of the heart, and a strong fever. If the inflammation suppurates and discharges itself into the abdomen, the disease becomes more critical and dangerous; in

this state there is but little prospect of recovery. Bleeding is proper at the commencement of the disease ; but the greatest relief is in general obtained from purgative medicines ; such as (No. 3, page 145, or No. 22, page 176) or the following if thought more proper.

(RECIPE, No. 29.)

TAKE—Barbadoes Aloes, one ounce ;

Castor oil, four ounces ;

Rhubarb, in powder, four drachms ;

Castile soap, sliced, one ounce ;

Salt of tartar, half an ounce ;

Ginger, in powder, one ounce ;

Treacle, four ounces ;

Mix, and give in one quart of warm gruel.

This drink will be found sufficiently strong for a full grown beast ; yet if it does not operate in the space of fourteen hours, it will be proper to repeat it, by giving one half of the above drink, every night and morning, until a sufficient passage through the intestines be obtained : for if this be not properly attended to, the disease will rapidly increase, and carry off the animal in a very short time.

If the fever and inflammation still continues, after the bowels have been sufficiently evacuated, it will be proper to repeat the bleeding, to the quantity of two quarts or more ; and if needful, it may be repeated every other day as long as the inflammation continues. Violent purgative medicines should be avoided, yet it will always be requisite to keep the body sufficiently open ; after which, give the following drink.

(RECIPE, No. 30.)

TAKE—Nitre in powder, two ounces ;
Castile soap, sliced, one ounce ;
Emetic tartar, one drachm ;
Salt of tartar, half an ounce,
Ginger, Aniseed, and Cummin seed, in powder, each
one ounce ;
Treacle, four ounces ;
Mix for one drink, and give it in a quart of warm gruel.

It will be proper to repeat this drink once a day, for several days together, or as long as any symptoms of the disease continue to appear.

If after all these endeavours, the fever still continues violent, give the powders (No. 9, page 156)

as there directed; and afterwards the animal may be restored by giving the drink (No. 11, page, 159). The diet should be mash made of scalded bran, ground linseed cake, or stiff gruel; (*see page 158*). By strict attention to this method of practice, a cure in the worst of cases may be expected.

SECTION X.

Inflammation of the Kidneys.

This disease is of frequent occurrence among horned cattle, and is often attended with very bad consequences. Small as the organs of the kidneys are, they are very essential to life, and cannot be dispensed with.—The quantity of blood, that passes through is very great; and whatsoever hinders or obstructs the extremities of the arteries, and prevents them from transmitting the fluid to its proper destination, will bring on this disease.

Inflammation of the kidneys may proceed from a violent blow across the loins, or from a strain in that part, but more frequently from small stones or gravel, being lodged within the kidneys; from hard driving in hot weather; or from any other circumstance that drives the blood too forcibly into the kidneys.

The symptoms are a burning heat, attended with great pain in the region of the kidneys, or across the loins; and in general extending on the ureters to the bladder; this is very perceptible to the hand, when applied upon the part; and if pressed, the animal will instantly give way: the urine is of a high colour, and sometimes nearly red, often discharged in small quantities, yet with considerable pain and difficulty; a shivering of the whole body; cold and clammy sweats; the ears, horns, and feet, are for the most part cold.

The sudden cessation of the nephritic pains, and the urine dribbling away in small quantities, of a black fetid colour, are certain signs of approaching mortification.—The symptoms that indicate a favourable termination in this disease, are as follow:—if the urine becomes high or coffee coloured; secreted in a much larger quantity

than stated before ; and at last is copious, thick, and mixed with mucus, a gradual relief follows, which always indicates a speedy cure.

Bleeding is always necessary in the commencement of this disease, in proportion to the size, strength, and condition of the beast, from three to four quarts, or more may be taken the first time : about two hours after give the purging drink, (No. 8, page 155).—This drink will be found sufficient to evacuate the intestines ; by which means the parts will be greatly relieved, and there is no doubt but the inflammation will be much checked.—Afterwards, give the following drink.

(RECIPE, No. 31.)

TAKE—Castile soap, sliced, one ounce ;

Salt of tartar, half an ounce ;

Balsam copaiba, one ounce ;

Oil of Juniper, half an ounce ;

Tincture of opium, half an ounce ;

Camphor, three drachms ;

Treacle, four ounces ;

Dissolve the Camphor in the oil of juniper, and then mix it with the Balsam of copaiba and the yolk of an egg, the soap may be dissolved in a quart of gruel ; and when new milk warm the remainder well stirred in and given to the beast.

This drink may be repeated every day, or every other day as occasion may require: should the inflammation continue, it will be proper to repeat the bleeding. As soon as the symptoms begin to abate, the cure may be effected by giving the following drink.

(RECIPE, No. 32.)

TAKE—Nitre, in powder, two ounces;

Cream of tartar, in powder, one ounce;

Camphor, three drachms;

Liquorice powder, and honey, of each two ounces;

Tincture of opium, half an ounce;

Mix for one drink,

Let all the ingredients be put into a pitcher, and a quart of hot gruel poured upon them: cover the pitcher down, until new milk warm, and then give it. It will be proper to repeat this drink, once a day, until the inflammatory symptoms begin to abate, and then every other day, till the beast is recovered.

Costiveness, in general attends a disease of this kind, and tends greatly to increase it; whenever it occurs it may be removed by the application

of the following clyster, which will lubricate the parts, and at the same time act as a fomentation.

(RECIPE, No. 33.)

TAKE—Linseed, half a pound ;—boil it in two quarts of water and strain while hot, then add

Glauber salts, four ounces ;

Treacle, four ounces ;

When new milk warm, inject it up the rectum, and repeat it as occasion may require.

If the hand be applied across the loins, and there appears to be an exterior heat, attended with pain (which is easily ascertained by pressing the hands) let the parts be well rubbed with the emollient mixture (No. 14, page, 164) once or twice a day.

SECTION XI.

Inflammation of the Stomach.

Inflammation in the stomach proceeds from different causes.—Neat cattle in general, seem to

have no bounds to their appetite when admitted into a fresh pasture ; they are too apt to overlay the stomach, by which the powers of digestion are not able to perform their office, they neglect to lie down, to ruminate or chew the cud ; for want of which it frequently undergoes a more severe process of fermentation and heat ; this obstructs circulation, and is the chief cause of bringing on an inflammation in these parts : it likewise frequently proceeds from the animal drinking too freely of cold water, when overheated, and in a state of perspiration, which is thus suddenly obstructed.

In some instances it is caused by the acrimony of the bile, or from some adjacent part that may be inflamed.—At other times it proceeds from taking into the stomach some acrid, stimulating or corrosive poison, and such like.

This disease is very acute and requires the most powerful means of relief that can be employed ; otherwise it will prove fatal.—The symptoms are as follow : a pungent and fixed pain in the stomach, attended with a burning heat ; the breath at times of so hot a nature, as to raise large blisters on the inside of the mouth ; the animal is quite restless, every thing that is swallowed appears

to increase the pain; and the stomach resists it with a degree of violence, which frequently brings on a painful cough: the extremities are for the most part cold; and the body is at the same time overspread with a cold clammy sweat; a palpitation of the heart, attended with a difficulty in breathing.—These are the chief symptoms that accompany inflammations of the stomach.

First bleed plentifully, according to size, and strength; if the disease proves obstinate, it will be proper to repeat the bleeding, in small quantities every two or three days, until the inflammatory symptoms cease.—The mashes, and water, that are given to the beast, should never exceed the warmth of new milk, as any thing hotter will tend to increase, rather than to diminish the inflammation.

The medical treatment must first be, to unload the stomach of its undigested crudities, by giving the most gentle purge that can possibly be prepared; for unless the stomach and intestines, be first evacuated, there will be little hopes of a cure.

The following will be found adequate for this purpose.

(RECIPE, No. 34.)

TAKE—Castor oil, one pound, beat it in a large bason, with the yolks of two eggs, until incorporated ; then add salt of tartar, half an ounce ;

Treacle, four ounces ;

Mix them in three pints of warm gruel, and give it to the beast as soon as possible.

If this drink does not operate, or sufficiently work a passage through the intestines in the space of from twelve to twenty hours, it will be necessary to repeat it, by giving one half of the above drink every night and morning till the object be obtained : but should this be thought too expensive, let the same proportion of the drink (No. 8 page 155.) be given as there directed every night and morning.

In every stage of this disease, nothing tends more to give relief, than to keep the body sufficiently open with gentle purgative medicines.—If the fever still continues, or rages with increased violence, give the powders (No. 9, page 156) as there directed.—As soon as the symptoms begin to abate, and the animal is recovering its for-

mer strength, the following will be found very beneficial for bracing and restoring the relaxed constitution.

(RECIPE, No. 35.)

TAKE—Prepared steel, in powder, half an ounce ;
Peruvian bark, and nitre, in powder, of each one ounce ;
Tincture of rhubarb, two ounces ;
Mix them together, and give them in a quart of warm gruel.

SECTION XII.

Colic or Gripes.

Oxen and Cows of every age are liable to this disease: It appears to proceed from a spasmodic contraction of some part of the intestines.—Almost all pains of the belly go under the denomination of Colic or Gripes: it will therefore be necessary to consider them under the following heads.

The *Flatulent* or *windy Colic*, is for the most part occasioned by the animal overloading the stomach with hard, dry, and indigestible food; such as bran, chaff or corn; likewise from drinking too large a quantity of cold water, when in a state of perspiration. In summer-time it frequently takes place among such cattle as are put into fresh pastures, where they are too apt to overlay the stomach with succulent grass: a concoction then takes place, and a quantity of air is formed, which if not speedily removed, will be converted into an acid that will corrode the stomach or some part of the intestines, and probably end in an inflammation.

In this case it appears the animal's heat is not sufficient to bring into motion that mass of fluid, which nature requires, so as to prevent the circulation from being impeded: the inner surface of the stomach and bowels become irritated by their cold or acrid qualities, which causes violent twitching pains, and produces much uneasiness: the animal frequently lies down and rises up on a sudden, and sometimes strikes its horns and hind feet against its belly. The pulse seldom appears to be much affected at first, but if the disease continues for any length of time, it becomes much

quicker and harder than usual.—This in general indicates the approach of inflammation, and is accompanied with considerable tension of the belly.

The *Inflammatory Colic*, for the most part proceeds from the former, and if not speedily relieved must terminate in an inflammation of some important part of the intestines.—This disease is in general attended with costiveness, which obstructing the contents of the stomach in some part of the bowels they in a short time become acrid and viscid; and hence the membranes that line the intestines become inflamed.—This is the chief cause of those excruciating pains the animal labours under.

Neat cattle are also very liable to another kind of costiveness, called by Drovers *Farder Bound*; it proceeds from the liquid parts forcing a passage either through the hardened excrements, or by the side. Considerable danger attends cattle in this situation; as the deceitful appearances are easily mistaken for purging.

When these symptoms of costiveness are discovered no time should be lost; give the purging drink (No. 34, page 194, or No. 38, page 199)

should the animal breathe short, and heave in the flanks, attended with continual fever, it indicates the approach of inflammation.

If this disease continues for a few days with all the aforesaid symptoms, a mortification will ensue, which will end in sudden death.—This may be prevented by administering proper medicines in time ; for when first attacked with the Colic, they seldom require more than some warm stimulating drink, to promote the peristaltic motion of the stomach and intestines.

(RECIPE, No. 36.)

TAKE—Restorative balsam, one ounce and a half ;

Sweet spirits of nitre, one ounce ;

Tincture of opium, half an ounce ;

Ginger, in powder, one ounce ;

Mix and give it in a quart of warm ale.

OR,

(RECIPE, No. 37.)

TAKE—Aniseed, sweet fennel seed, grains of Paradise, long pepper, ginger, cummin seed, all fresh powdered, of each one ounce ;

Sweet spirits of nitre, one ounce;

Tincture of opium, half an ounce;

Mix these for one drink, and give it in a quart of ale.

Either of the above drinks are excellent for removing flatulency and expelling wind; and may be repeated twice in the course of the day, if no feverish symptoms appear: but if the animal begins to swell in the body without obtaining any relief from the above, it will be necessary to take away from three to four quarts of blood.—This will check the inflammation; about two hours after bleeding the following purging drink may be given.

(RECIPE, No. 38.)

TAKE—Barbadoes aloes, four drachms;

Epsom salts, and castor oil, of each four ounces;

Aniseed, carraway-seed, and ginger, fresh powdered, of each one ounce;

Oil of juniper, and tincture of opium, of each half an ounce;

Corse sugar, four ounces; dissolve the aloes and salts in a quart of hot gruel, and when new milk warm, add the remainder of the ingredients, and give it.

This in general operates in about twelve or fourteen hours, if not, it will be proper to repeat

it ; and to give one half of the above drink every night and morning, until the desired effect be obtained. The quantity of blood to be taken from the beast, when physic is intended to be given in so short a time after ; should not exceed two parts out of three of the usual quantity taken at once, otherwise the animal would be reduced too low. The injection of a clyster up the rectum, twice a day, will greatly assist the physic in its operation.

(RECIPE, No. 39.)

TAKE—Linseed, bruised, four ounces ;

Tobacco, one ounce ;

Common salt, one handful ;

Treacle, four ounces ;

Boil the two first articles in three quarts of water ; strain through a linen cloth, and add the remainder. When new milk warm inject up the anus.

Clysters are in most cases beneficial ; they relax the parts as far as they go, and by softening the fæces, promote evacuation much sooner.—Immediate ease frequently succeeds these evacuations ; and the animal's appetite may in a short time be restored by good nursing, and a few of the restorative drinks (No. 11, page 159) be given as there directed.

SECTION XIII.

Fog Sickness, Hoven, or Blown.

This is a common complaint amongst Neat Cattle, and is attended with symptoms of the most distressing nature. It requires speedy relief, or a rupture of the stomach or some part of the intestines may be expected to take place; which generally soon terminates the animal's existence.

Fog Sickness usually proceeds from a voracious and greedy disposition, incident to Neat Cattle when permitted to satiate their appetite with food of which they are most fond; such as clover, vetches, rich fog, or different kinds of grass, &c. This disease, or rather accident, requires no description, as it is well known to most cattle-keepers. Beasts are the most subject to be Fog-sick, Hoven, or Blown, in summer; and in the winter to be choaked. It is possible they may be seized with the former, or escape the latter.

This complaint is in general occasioned by the animal feeding for a considerable time upon rich succulent food, so that the stomach becomes over charged, and they through their greediness to eat, forget to lie down to ruminate or chew their cud. Thus the paunch, or first stomach is rendered incapable of expelling its contents; a concoction and fermentation take place in the stomach, by which a large quantity of confined air is formed in the part that extends nearly to the anus, and for want of vent at that part causes the animal to swell even to a state of suffocation, or a rupture of some part of the stomach or intestines ensues. As sudden death is the consequence of this, the greatest caution is necessary in turning cattle into a fresh pasture, if the bite of grass be considerable; nor should they be suffered too long at a time in such pastures before they are removed into a fold yard, or some close where there is but little to eat, in order that the organs of rumination and digestion may have time to discharge their functions.

If this be attended to a few times, it will take away that greediness of disposition, and prevent this distressing complaint.—Various expedients are employed for the purpose of affording relief,

both with medicine and manual operation. Some farmers have made it a practice to give such cows as are of a greedy disposition a comfortable drink, such as (No. 1 or 2, page 143) about an hour before they are turned into a fresh pasture. This, I believe, has had the desired effect, for I never knew any one instance of its failure.

As soon as the beast is discovered to be either Hoven or Blown, by eating too great a quantity of succulent grasses, let the purging drink (No. 3, page 145) be given as there directed; this drink will for the most part check fermentation in the stomach, and in a very short time force a passage through the intestines.

When medicine fails to have a speedy effect, recourse must be had to external means, such as the contrivance of Dr. Monro, first communicated to the public in the year 1793. It consists of an iron wire formed into a tube, and covered over with soft smooth leather: this instrument, I understand, may be had ready made in London.—It would be well if one was kept in every town.—The distance found by the Doctor from the fore teeth to the first stomach in a large ox, is about six feet. The instrument, therefore,

should be full that length, or rather longer, and then gently passed down the beast's throat into the first stomach; whence a large quantity of fluid will be discharged. It may remain there for a short time, as it does not impede respiration.

There is another kind of instrument recommended by Mr. Eager, which appears to be equally useful with that of Dr. Monro. Mr. E's contrivance is of two sizes, the one adapted for sheep, and the other for cattle; for which the London Society for the Encouragement of Arts, voted him a premium of fifty guineas in the year 1796. These instruments are constructed as follows: That for cattle is six feet long, with a round knob of wood properly secured to one end of the cane. A man is ordered to lay hold of the horn with one hand, and the nostrils with the other: the assistant must lay fast hold of the tongue with one hand, while he pushes the cane down the throat with the other. As soon as it enters the stomach, a large quantity of fetid air will be disengaged, which will easily be discerned by the animal's body sinking to its former state again; and nature taking its regular course, the beast will soon be restored to health.

If neither of these instruments are near at hand, the following may be used, take a knob of wood turned in the form of an egg, with a hole bored through the centre and out at each end. Then take a common cart whip two yards long; and secure one end fast in the knob; dip it in oil or soft grease, and introduce it in the same manner as the former.

Paunching is another method frequently resorted to in dangerous cases. The operation is performed in the following manner: take a sharp pen-knife and gently introduce it into the paunch, between the haunch bone and last rib on the left side. This will instantly give vent to a large quantity of fetid air: a small tube of a sufficient length may then be introduced into the wound, and remain there until the air is sufficiently evacuated; afterwards take out the tube, and lay a pitch plaister over the orifice. Wounds of this kind are seldom attended with danger: where it has arisen, it has been occasioned by the injudicious operator introducing his knife into a wrong part. After the wind is expelled, and the body has been reduced to its natural state, let the following cordial drink be given.

(RECIPE, No. 40.)

TAKE—Aniseed, diapente, and elecampane, each one ounce ;
Juniper berries, one ounce ;
Grains of Paradise, one ounce ;
Tincture of Rhubarb, two ounces ;
Sweet spirits of nitre, one ounce ;
Tieacle, four ounces ; powder and mix for one drink,
and give it in a quart of warm ale.

This drink may be repeated every other day for two or three times.

SECTION XIV.

Staggers, Vertigo, or Swimming in the Head.

Horned cattle are subject to this complaint, which is generally known by some of the above mentioned names. The seat of this disease appears to be in the head ; although some think it proceeds from the stomach ; and this is most probably the case.

It proceeds from a quantity of phlegmatic humours pressing upon the brain and optic nerves, which causes the animal to have a wavering and staggering motion of the body.

The symptoms are attended with heaviness and dulness of the whole frame, a constant disposition to sleep, which is manifested by the beast resting its head upon any convenient place. If this disease be not checked in its infancy by bleeding, evacuation, and proper management, it may terminate in an inflammation of the brain, or some other part of the body. This disease mostly attacks animals that have been kept in a state of poverty and starvation during the winter season; and which have in the spring of the year been admitted into a fertile pasture: hence is produced a redundancy of blood, and other fluids pressing on the contracted vessels, while the animal œconomy on the other hand, is using its utmost endeavour to restore reduced nature to its original state. If it is not checked in the manner as stated before, inflammation in all probability must take place; in which case the beast is attended with all the symptoms of one that is raving mad.

The cure must first be attempted by taking from three to four quarts of blood from the animal, two or three hours after give the purging drink (No. 3, page 145), or the following if thought more proper.

(RECIPE, No. 41.)

TAKE—Barbadoes aloes, one ounce ;

Castile soap, salt of tartar, and ginger, in powder, of each half an ounce ;

Aniseed, fresh powdered, two ounces ;

Epsom salts, four ounces ;

Treacle, four ounces ;

Mix for one drink in a quart of hot gruel, and give it when new milk warm.

Either of these drinks are generally sufficient to purge a beast of a moderate size, but if they should not in the space of sixteen or twenty hours, let one half of either of the drinks be given every twelve hours, until the desired effect is obtained, and then you may give the following drink.

(RECIPE, No. 42.)

TAKE—Emetic tartar, one drachm ;

Volatile salt of ammonia, and camphor, each two drachms, in powder.

Nitre, and cream of tartar, in powder, of each one ounce ;

Treacle, four ounces ;

Mix, and put them in a pitcher, then pour a quart of hot gruel upon the ingredients ; stir the whole together, and give it new milk warm.

It will be necessary to repeat this drink twice a day, until the symptoms begin to abate ; afterwards, once a day will be sufficient : but so long as the fever continues to be attended with raving and delirious symptoms, it will be proper to take from one, to two or three quarts of blood from the animal every two or three days.—Keeping the body open with purgative medicines, bleeding, and administering the above drink, according to the rules laid down, may prove sufficient to perform a cure.

If the disease continues, the following blistering ointment may be well rubbed on the poll of the head, and on each side of the neck, with the hand.

(RECIPE, No. 43.)

TAKE—Yellow basilicon ointment, three ounces ;

Spirits of turpentine, one ounce ;

Spanish flies, in very fine powder, half an ounce ;
Mix them well together on a slab, and put them in a
pot for use.

It will be proper to repeat this blister once a day for several days together ; and if it takes proper effect, it will in general give very great relief to the parts affected. When the blister has ceased to discharge, the part may be rubbed with Elder or Marshmallow ointment once a day, for two or three times.

SECTION XV.

Of the Milk Fever.

This is a disease peculiar to Cows in high condition, at the time of calving, whether young or old ; all are liable to be attacked with it.—Whenever it takes place, either at home or in the field, it is distressing to the animal, as well as troublesome to the owner. The *Puerperal* or *milk fever*, is most frequent during the hot weather of summer.

The Cows most liable to be attacked with this fever, have large udders that are full of milk for several days before calving, and often very much inflamed and swelled. The best method of preventing this disease is as follows:—Take four or five quarts of blood from the beast, about eight or ten days before her time of calving; let the blood be taken away at night, and the beast kept in a fold yard, till next morning.—The following drink should be given before the animal is put to grass, as it will check the overflow of the milk, and brace up the relaxed vessels.

(RECIPE, No. 44.)

TAKE—Alum, in powder, two ounces;

Nitre, and cream of tartar, in powder, of each one ounce;

Treacle, four ounces;

Mix them, and let them be put in a pitcher, and a quart of boiling ale put upon them. Stir the whole, and when new milk warm, give it: two hours after, the beast may be turned out.

This drink may be repeated a second time, if thought necessary.—If the cow's udder is not

sufficiently relieved by bleeding, and the aforesaid drink, the part may be well rubbed with the following repellent medicine.

(RECIPE, No. 45.)

TAKE—Goulard's extract, four ounces ;
Camphorated spirits of wine, eight ounces ;
White vitriol, one ounce ;
Rain water, that has been boiled, one quart ;
Mix, and put them in a bottle for use.

The udder, and all the vessels about it that appear swollen or inflamed, must be well rubbed with this mixture, two or three times a day.—If the inflammation still continues to increase, it will be proper to milk her once or twice a day, for several days before calving.—When this is the case, the above lotion may be omitted, and the following liniment applied each time after milking.

(RECIPE, No. 46.)

TAKE—Elder, marshmallow ointment, and soft soap, of each four ounces ;
Spirits of turpentine, two ounces ;

Oil of origanum, half an ounce ;

Mix the whole well on a slab, and keep in a pot for use.

This will greatly assist in removing the inflammation, and in assuaging the tumefied parts ; as well as restoring the milky secretion to its proper state.

Cows thus afflicted before calving, require great care and attention at the time ; by which this disease may in a measure be prevented.—The milk fever most commonly attacks the Cow on the second, third, or fourth day, sometimes in a few hours after calving. Its symptoms correspond with those of many other fevers : a cold shivering fit comes on, accompanied with a throbbing, and great sickness ; the pulse quick, and the tongue parching dry : the animal becomes very restless, attended with a remarkable depression of spirits, and loss of strength ; the extremities are for the most part cold.

As soon as this disease takes place, it will be proper to attempt the removal of it by giving to the animal, one of either of the following cordial drinks.

(RECIPE, No. 47.)

TAKE—Ginger, in powder, one ounce;
Tincture of Rhubarb, one ounce;
Restorative balsam, one ounce and a half;
Treacle, four ounces;
Mix, and give it in a quart of warm ale.

(RECIPE, No. 48.)

TAKE—Peruvian bark, in powder, one ounce;
Ginger, grains of Paradise, and long pepper, in powder, each one ounce;
Aniseed, caraway, cummin, and sweet fennel seed, fresh powdered, of each one ounce;
Salt of tartar, half an ounce;
Treacle, four ounces;
Mix, and give it in a quart of ale.

If the fever makes but little progress, and the cow appears brisk and lively, eats her meat moderately well, and her evacuations nearly regular, it will be proper to repeat the drink once a day, or every other day for two or three times. These drinks will promote the milky secretions, by destroying the acidity which has a tendency to choke up the lacteal vessels, and bring on an inflammation in the udder.

If the fever appears gradually to increase from the first attack, care must be taken or the animal will soon be in a costive state, *saped*, *chue-bound*, or *fardel-bound*; (as it is variously called).—All these are in fact synonymous names, relating to the same thing, which may be better understood by one than the other, in different parts of the country.—If therefore, the fever continues to increase after giving either of the above drinks, her body must be kept open by giving one of the following purging drinks.

But if the fever attacks the same day that she calves, and it be necessary to give her physic, give her as under.

(RECIPE, No. 49.)

TAKE—Epsom salts, one pound;

Aniseed and ginger, in powder, each two ounces;

Treacle, four ounces.

Put all the ingredients into a pitcher, and pour three pints of boiling water upon them; when new milk warm give the dose. If the fever does not attack her till the third day, then give the following.

(RECIPE, No. 50.)

TAKE—Barbadoes aloes, one ounce ;

Castile soap, salt of tartar, and ginger, in powder, of
each half an ounce ;

Aniseed, fresh powdered, two ounces ;

Castor oil, four ounces ;

Treacle, four ounces ;

Mix for one drink in a quart of hot gruel, and when
new milk warm give it.

And if on the fourth or fifth days, give (No. 3 page 145) as directed.—As soon as any of the preceding drinks have sufficiently evacuated the bowels and nearly ceased to operate ; the drinks (No. 47, or 48, page 214) may be repeated.

It will be proper here to notice, that in every stage of this disease the body should be kept open with the purgative medicines before mentioned ; and they may be greatly assisted by injecting the following clyster up the rectum.

(RECIPE, No. 51.)

TAKE—Linseed, in powder, eight ounces ; give it a boil in
three quarts of water ; strain, and add salt of tartar,

one ounce ;
Sweet oil, four ounces ;
Treacle, four ounces ;
Mix, and force it up the anus.

This clyster will lubricate the parts and soften the fœces ; it will likewise correct the acid in the rectum, which frequently prevails in this disease.

Cows afflicted with the milk fever, require great care and good nursing ; as they are sometimes unable to take a sufficient quantity of support, of themselves ; it is necessary to horn a proper quantity into them.—The gruel as in Page 158, is well adapted for this purpose, and may be given three or four times a day, two or three quarts at a time.

SECTION XVI.

To extract the Placenta, or the cleansing from a Cow after calving.

The extracting the Cleansing from the Cow, requires care and proper management, lest

violence should be used in drawing the navel-string too strongly. If the Cow has gone her natural time, there is not the least difficulty or danger in taking it from her by manual operation, provided she be put in a proper position; otherwise it will be impossible to take it from her without tearing. Such persons as wish to remove the Placenta, and to give the Cow that ease which nature requires after pains of this kind, should observe the following rules.

First, Let the Cow be taken to a proper cow-house, or hovel, well littered down with clean straw, as soon as possible after calving; care must be taken that her fore parts stand on rising ground, or that the ground before be higher than that she stands on behind. This will greatly assist the operator. Some Cows will part with their cleansing with little assistance while standing, others will part with it much more easily when laid down.—In either case the operator must take a towel, or whisp of hay or straw, and lay hold of the umbilical cord or cleansing, and every time she attempts to strain, draw it gently forward, if only for a few inches at a time, until you get it dislodged from its bed, and then it generally comes all at once.

There is but little chance of taking the cleansing properly away, except every attention be paid to her throes or after-pains; we may assist nature very advantageously, but if we counteract her efforts, we expose ourselves to many disadvantages. Those Cows, that have slipped their calves before the regular time of gestation, (and likewise such as have gone their full time, where the cleansing has been neglected to be taken away) in a few days become so tender, that the least pressure upon it will cause it to tear. In these cases it will be needful to give her two or three of the following drinks.

(RECIPE, No. 52.)

TAKE—Spermaceti, two ounces;

Bay and juniper berries, each one ounce, in powder;

Cummin seed, fresh powdered, two ounces;

Grains of Paradise, and aniseed, fresh powdered, of each one ounce;

Diapente, one ounce;

Saffron, two drachms;

Treacle, four ounces;

Mix the whole in a quart of hot ale, and give it when new milk warm.

OR,

(RECIPE, No. 53.)

TAKE—Spermaceti, two ounces ;

Balsam of capivi, one ounce, beat them up together with the yolk of an egg, in a marble or stone mortar, till well incorporated. Then add Irish slate, in fine powder, two ounces ;

Aniseed, grains of Paradise, and carraway-seed, fresh powdered, one ounce ;

Treacle, four ounces ;

Mix the whole in a quart of warm ale, and give it when new milk warm.

It will be proper to repeat these drinks every other day for three or four times. They are both very excellent drinks for Cows of all descriptions after calving. In cleansing and healing those vessels which have become lacerated by the divulsion of the placenta from the uterus, (as soon as the flux or discharge from those parts begins to cease, and any deficiency is found in the milky-secretions) it will be proper to give them a few of these cordial drinks (No. 1 and 2, page 143), as there directed. These are excellent drinks after calving.

SECTION XVII.

How to extract a Calf.

Persons of all descriptions, who have any thing to do with Neat Cattle, are, or ought to be, well acquainted with the manner in which a Calf should present itself when in a natural or proper position.

All those positions are called unnatural, in which the Calf is presented otherwise than with its head and fore feet first, and its back towards the Cow's back. It is well known to those who have the management of Cows, or all who practice in medicine amongst them, that Calves are very commonly presented in a variety of different postures, for which no just reason can be assigned. And whenever they present themselves in a wrong posture, both Cow and Calf are in danger, and that more or less according to the ability of the person employed to give the necessary assistance.

In the first place, then, after the waters are broke, and only the head and one foot present themselves, you must lay hold of the Calf's head and wait till the throes are off, then gently push it back, and rectify the other foot; after which it may be extracted without danger.

Secondly, If the head only presents itself and both feet are left behind, the head must be pushed back with a gentle hand, as soon as her throes are off and the feet properly placed with the utmost care, lest by any means you wound or tear the uterus.

Thirdly, If all the four feet be turned where the back ought to be, towards the top of the uterus, in this situation it will be impossible to extract the fœtus until it be put in a proper position. In operations of this kind every thing depends upon the management and activity of the person employed in putting the beast into a favourable posture. The hind parts of the Cow must be sufficiently raised with straw, or otherwise with bags filled with that or any thing else that is soft and easy to lie on, and properly placed under her. By these means the person will be very much assisted in putting the Calf in a suit-

able way for extraction : then wait a little until her throes or pains return, and then give nature your best assistance.

Fourthly, It sometimes happens that the hind legs make their first appearance; in this case it will be found better to extract the Calf in that position, than attempt to turn them.

Fifthly, Instances frequently occur of Calves being dropsical in the head; this may be known by the largeness of the latter, in which case the other parts will be generally small and wasted away. Under these circumstances, if the Calf cannot be extracted in the common way, the best method will be to fix a proper cord round each foot, or upon the upper or under jaw (as may be thought most convenient at the time of the operation), and then to assist the animal every time nature attempts to do its office. If, the Calf be dead, it may be cut away with a proper knife. This requires a person of skill and experience, otherwise he may take the life of the Cow.

Sixthly, Frequent instances have also occurred where the shoulder has presented itself first at

the mouth of the uterus; this is a difficult case, and requires that the hand be introduced in search for the fore legs; or, if thought more proper, the hind legs may be brought forward; this must be left to the judgment of the person employed.

Seventhly, It sometimes happens in cases where the Calf is dead, or dropsical in the head, that instruments are found necessary to be used. When this is the case, the Cow is mostly reduced to a weak, low, and emaciated state. The instrument may be formed out of a small rod of iron, or very strong wire (sufficiently polished) with a small hook at the end. This hook must be so placed in the operator's hand as not to endanger the uterus when introduced. It must then be fixed in some part of the Calf's head, as the sockets of the eyes, in the mouth, or in any other part about the head, as may appear most convenient at the time of extraction. Sometimes the foetus is so enlarged, and the womb so contracted, as not to admit of extraction. It will then be necessary to take it away by pieces. This may be done, but requires a man to be well skilled in this kind of practice. The knife must be made for the purpose, and the blade be

so placed in the ball of the hand, with the fore finger over the point, so as to protect the uterus from danger of being wounded. In all cases where the Cow has been roughly handled, and the inner parts much bruised, the following mixture will be found useful in warming, healing, and stimulating the injured parts.

(RECIPE, No. 54.)

TAKE—Compound tincture of myrrh, restorative balsam, and
Camphorated spirits of wine, each four ounces ;
Barbadoes tar, and olive oil, each three ounces ;
Sweet spirits of nitre, and tincture of opium, of each
two ounces ;
Treacle, four ounces ;
Mix them all together, and keep them in a bottle
for use.

The method of using this mixture is as follows ; take from two to four table spoons full in the hollow of your hand, then introduce it up the matrix or womb, or a sponge may be filled with a sufficient quantity of the medicine, and introduced as above, pressed well out and brought back again ; either way will answer the purpose : as soon as the operation is over, give the drink (No. 52 page

219, or No. 53 page, 220) as there directed ; if neither of these drinks are in readiness (No. 1 or No. 2, page 143) may be given. It will be necessary to repeat them for three mornings together at least ; her body likewise should be kept open with mashes of scalded bran, and a small quantity of ground barley, oats, or malt mixed along with it.—Good nursing and proper management, will soon restore the animal to her former state again.

SECTION XVIII.

The falling down of the Calf Bed.

This is an accident of frequent occurrence among old Cows, at the time of calving ; and proceeds from the violent motions that attend the extracting of the calf, and likewise from the relaxation of the ligaments of the uterus.—Some Cows are more subject to the falling down of the calf-bed, than others ; this appears in a great measure to proceed from the shape and make of the Cow

in those parts.—The Cows most liable to this complaint rise considerably on the small of the back, in form of a curve, and begin to lower towards the tail: the hips, rump, and sirloin, are chiefly straight. Cows made in this form denote great weakness in those parts; and without care, and proper management at the time of calving, are almost sure to have this complaint.—The observance of the following Rules, may prove a means of preventing it.

First, if they are kept in a cow-house at the time, the floor or pavement should be on a level; but it would be greatly to the advantage of some to stand higher behind than before, for a considerable time before calving; as it would enable them when down, to rise with more ease, and less danger of straining themselves in rising. If the falling down of the calf-bed be suspected, the cow ought to be carefully watched at the time of calving, and as soon as that takes place, care should be taken to have in readiness a clean sheet to put underneath and around the calf-bed, if she lays down, or to support it if standing up, and likewise to protect it from particles of dirt or straw adhering to it, as also from the effects of the air. Then let the operator take away the placenta or

cleansing in the gentlest manner possible, lest an effusion of blood takes place, and endangers the life of the animal.—Afterwards bathe and wash the uterus, with the following lotion.

(RECIPE, No. 55.)

TAKE—Rectified spirits of wine, eight ounces;

Camphor, one ounce, dissolve the camphor in the spirits,
then add

Goulard water, four ounces, and soft water one quart;

Mix all together, and when used let it be new milk
warm.

As soon as the parts have been well washed or fomented with this lotion, her hind parts must be sufficiently raised, and the person's hand well rubbed over with linseed oil; then endeavour to find the middle part of the calf-bed, and by the gentle pressure of your hand it may in general be replaced with ease.—Sometimes it is with difficulty prevented from falling out a second time; when this happens, take a small wire and pass it through the lips of the womb, and bend each end of the wire in order to prevent it from falling out; this may be permitted to remain there several days, or until such time as the calf-bed gets properly fixed

in its former situation ; which will easily be known by the animal having no symptoms of straining herself, after which, the wire may be taken away.

As soon as the calf-bed is properly replaced, and made secure, it will be found necessary to give her the following drink, which will be found of use in removing those violent after-pains, to which cattle in this state are liable.

(RECIPE, No. 56.)

TAKE—Peruvian bark, best ginger, and prepared chalk, of each
one ounce, in powder ;

Aniseed, fresh powdered, three ounces ;

Grains of Paradise, half an ounce, in powder ;

Tincture of opium, half an ounce ;

Treacle, four ounces ;

Mix, and put the whole in a pitcher : then pour a quart of hot ale upon the ingredients, and give it when new milk warm.

This drink should be repeated every other day for two or three times.—Or

(RECIPE, No. 57.)

TAKE—Restorative balsam, two ounces ;

Anodyne mixture, six ounces ;

Treacle, four ounces ;

Mix, and give it in a quart of warm ale.

This may be repeated as above.—Warm water, mashes, and proper management, must be particularly attended to.

SECTION XIX.

Of the Locked Jaw.

This disease is not so common among Neat cattle, as Horses : whenever it takes place, it generally begins with a sudden stagnation of the whole system ; every muscle appears seized at once, and the jaws are so fast closed, as very often to require an instrument to force them open, at the time of giving medicine. The first thing necessary towards a cure, must be to bleed ; taking away three, four, or five quarts, according to the animal's size and strength ; after which give the following drink.

(RECIPE, No. 58.)

TAKE—Opium, two drachms ;

Best asafoetida, cut small, one ounce ;

Put them in a marble mortar and gradually add a pint of boiling water, keep constantly stirring till all be dissolved ;—Then add

Spirits of hartshorn, two ounces ;

Ginger in powder, one ounce ;

Cayenne pepper, half an ounce ;

Treacle, four ounces ;

Mix them all together, and give in a pint of warm gruel.

It will be proper to repeat this drink, once or twice a day, so long as the symptoms remain violent.

If this disease attacks the beast in the Winter-season, two or three pails full of warm water may be thrown upon him, and if in the summer, cold water may be used ; afterwards let two persons, one on each side, rub him down with a wisp of straw, this well applied all over the body, legs, and ears, will often give considerable relief : after which, cover the animal down with a warm blanket, as warmth in this disease is always found beneficial.

Locked Jaws, or convulsions of this kind, frequently proceed from wounds in different parts of the body, where a nerve or tendon is injured : but other causes produce convulsions, as the taking of poison, or licking up any poisonous herbs, or insects ; these irritate the stomach and intestines, by which the convulsions not only attack particular parts, but very often extend over the whole body.—All such parts as are most contracted, may be well rubbed two or three times a day with the liniment (No. 10, page 157) which will be found to have a powerful effect in removing spasms in all parts of the body.

If the symptoms are not removed in twenty-four hours, the animal must be treated in the same manner as for the inflammatory fever.—See *Section xi. page 191.*

SECTION XX.

*On the Utility of Purging Medicines, in most Diseases
incident to Horned Cattle,*

Neat Cattle are subject to a variety of diseases as well as Horses; though not to the same extent as the latter; this may in a great measure be attributed to the labour and fatigue one undergoes, more than the other.

Physic, for Cattle, is one of the principal remedies towards curing most fevers and inflammatory diseases when properly administered: nevertheless it is seldom adviseable to give physic to a beast, unless it labours under some disease.—Some Graziers (during summer) give old Cows, several purging drinks, by way of keeping off the downfall, which in general have had the desired effect.—But in other respects, they seldom require medicines of this kind.

Neat Cattle are by nature of a greedy and ravenous disposition, their appetite is unbounded,

and hardly ever satisfied: Milch Cows in particular are of this disposition; for if feeding on herbage, or other food agreeable to their palate, they will very often continue eating until they are in danger of suffocation: thus the powers of digestion are overburdened, and a fever or other inflammatory disease is frequently induced; in which case purgative medicines alone can give relief.

As Fevers are in general accompanied with inflammation, nothing tends more to afford relief, than opening medicines; they unload the stomach and intestines of the mass of indigested crudities, which so rapidly increases all diseases of this kind.

External Inflammation, proceeds from outward causes—such as wounds, according to their situation and extent; bruises, and other accidents they are liable to, on different parts of the body; all these produce inflammation in the part according to their severity, affect the whole system, and very often bring on a fever: if the latter be not timely removed by administering proper purgative medicines, the animal may quickly be lost. Some persons are of opinion, that physic prevents the wound from forming a proper pus or matter,

I have never found it so, on the contrary it always lessens the inflammation in the part affected, and the matter that is formed is in general smaller in quantity and better in quality, and the wound heals much sooner.

The greatest danger attendant on wounds is, when the inflammation exceeds its proper bound, and instead of generating pus, a gangrene takes place; this if not timely checked, will disseminate itself through the whole system. In this case the animal will appear greatly dejected in spirits, with wildness in the eyes, the pulse being quick, low, and weak.—After a gangrene or mortification, once takes place, and enters the system, little can be expected from the aid of physic.

In all kinds of Fevers, whether *symptomatic*, *local*, or of a *primary affection*, purgative medicines are of great importance; for without a free passage through the intestines, there is but little hope of a recovery. In different parts of this Treatise a great variety of *Purging Drinks* will be found, suitable for every disease; the Reader is referred to those marked with the following numbers: No. 3, page 145; No. 8, page 155; No. 16, page 168; No. 21, page 175; No. 22, page 176;

No. 29, page 185; No. 34, page 194; No. 41, page 208; No. 50, page 216; and No. 60, page 238: the first Number, No. 8, and No. 60, are the most chiefly in use, being less expensive than the other.

All these drinks it should be observed, are calculated for full grown cattle. The remainder of the purging drinks will be found under the respective diseases to which they belong.

SECTION XXI.

The Hoose, or Cough.

Diseases of this kind are often very troublesome to cure, as well as distressing to the animal: Cows and young cattle are the most liable to complaints of this nature.

The *Hoose* or *Cough*, proceeds from taking cold either after calving, or from being kept in a warm hovel, and afterwards exposed to the inclemency

of the weather ; which producing an overflow of extraneous matter in the throat, causes a continual tickling motion in that part.

The symptoms are a shortness of breath ; continual motion to cough, or hoose ; attended with great difficulty in respiration, which seems to press hard upon the diaphragm and the abdominal muscles. Without speedy relief, it may bring on some local complaint, and terminate in a fever, or an inflammation of the lungs, and so carry off the animal.

The following drink will be found useful in removing diseases of this kind.

(RECIPE, No. 59.)

TAKE—Balsam of sulphur, two ounces ;

Barbadoes tar, one ounce ;

The yolks of two eggs, beat them together in a large bason until they be properly incorporated ;—Then add
Ginger, Aniseed, Cummin seed, Elecampane root,
Grains of paradise, and Liquorice root, of each one ounce in powder ;

Salt of tartar, half an ounce ;

Honey, four ounces ;

Mix all together, and add by a little at a time (constantly stirring) one quart of warm ale, and give it when new milk warm.

Let this drink be repeated every other day, for three or four times.—If it be at the commencement of the disease, one or two of the drinks are generally found sufficient, to remove the complaint. Its effects are powerful in removing and carrying off the offending humours, from the pulmonary vessels, and in restoring them to their proper tone again.—It warms, stimulates, and gives fresh action to the stomach, and intestines; by which nature will return to her regular course, and the health of the animal be quickly restored.

When this disease is of long standing, it can seldom be removed without first giving a purging drink, such as (No. 3, page 145) or the following.

(RECIPE, No. 60.)

TAKE—Epsom salts, one pound;

Aniseed and Ginger, in powder, each one ounce;

Treacle, four ounces;

Mix and put all the ingredients in a pitcher, and pour one quart of boiling ale upon them, when new milk warm give the dose.

In some cases (No. 29, page 185) will be preferable.—After any of these purging drinks have been given, and have ceased to operate, it will be well to give the above drink, and repeat it as already directed.—By this method of treatment, together with plenty of good mashes, warm water, and proper management, the beast will, in general, soon be well.

SECTION XXII.

Rheumatism, or the Joint Fellon.

The word *Fellon*, is of frequent occurrence in the country ; it is chiefly applied to diseases proceeding from cold, and is variously called as follows ; *Cold Fellon*, *Joint Fellon*, and *Chine Fellon*.

This is a disease of the Joints, and chiefly affects Milch Cows and Young Cattle, at the spring of the year ; it is in general occasioned by the animals being kept in a starving state during the

winter, and being suddenly exposed in the spring to the inclemency of the north and north-easterly winds, in some low situation.

The symptoms are as follows ; the animals for the first two or three days, only appear stiff in the joints ; afterwards they begin to swell, yet there is no appearance of inflammation ; but a cold, phlegmatic tumour arises in the joints, accompanied with a stiffness, that frequently extends all over the body to such a degree, that the beasts are unable to rise when down, without some assistance.

Cattle labouring under this disease suffer very much from the severe pain in the parts, as well as from listlessness and inability to stir.—As soon as this disease makes its appearance, the animal must be taken to a warm Cow-house or stable, as warmth very much assists nature, and at the same time promotes its effects in carrying off the disease.

The joints, and all the parts affected with stiffness, must be well rubbed with the following mixture.

(RECIPE, No. 61.)

TAKE—Neats-foot oil, eight ounces ;

Spirits of turpentine and spirits of sal-ammoniac, of each five ounces ;

Camphorated spirits of wine, six ounces ;

Oil of origanum and tincture of opium, of each two ounces ;

Mix and shake them well together in a bottle for use.

These oils must be well rubbed in on the joints, once or twice in the day ; they warm, and stimulate the diseased parts, and expel that flatulency, which attends tumours of this kind. There is seldom any fever in this disease, except that of a nervous kind : the whole frame appears to be affected with a sluggish disposition, and a want of animal heat : this by some persons is called *Rheumatism*, and by others the *Joint Fellon*.

The method of cure consists in giving fresh life and vigour to the animal, in order that nature may revive and enable it to cast off the sluggishness attendant on complaints of this kind. The following drink may be given to very great advantage.

(RECIPE, No. 62.)

TAKE—Gum guaiacum and peruvian bark, in powder, of each one ounce ;

Aniseed, Cummin seed, Caraway seed and Grains of paradise, in powder, each one ounce ;

Camphor, two drachms, powdered with a few drops of spirits of wine ;

Treacle, four ounces ;

To be given in a quart of warm ale.

If the ale be poured hot upon the ingredients, the gum guaiacum must be kept out, and afterwards mixed in the drink when new milk-warm.

It will in general be found necessary to repeat this drink every other day for a few times. At the commencement of the disease, it will be easy to remove, by giving two or three of the cordial drinks (No. 1, or No. 2, page 143) as there directed: these are well calculated to stir up the peristaltic motion of the stomach and intestines, and to enable nature to shake off the indisposition.

In some instances this disease may change to the *Acute*, or *Inflammatory Rheumatism*, which is

attended with a fever, pain and swelling in the joints: when this happens, it will be necessary to keep the body open, by giving the animal one of the purging drinks (No. 3, page 145, or No. 60 page 238) as there directed, and it is necessary to repeat it as occasion may require.

SECTION XXIII.

Poisons.

Poisons may be considered under two distinct heads, the one *external*, the other *internal*: we shall in the present Section, confine our attention to the latter.

They proceed from different causes during the summer season, such as eating of deleterious herbs, or drinking of stagnated water, that often swarms with a great variety of insects of different kinds, many of which there is reason to believe are of a poisonous nature: but whether the beast has taken poison by eating some deadly vegetables, or from

drinking filth out of stagnated waters, the symptoms are the same—a violent pain and heat at the stomach; the body frequently swells to a prodigious size, attended with giddiness and stupidity. From whatever source the poison may have been taken, if allowed to remain in the stomach, and no attempt be made to remove it by administering suitable medicines, it generally proves fatal in a short time.

Beasts when affected with poison require speedy assistance; if they begin to swell, let a pen-knife be introduced (between the haunch-bone and the last rib on the left side) into the paunch; this will instantly give vent to the foul air, and very often afford speedy relief to the animal, particularly if the poison proceeds from vegetables.—As soon as possible after any beast is discovered to be in this state, let the drink (No. 34, page 194) be given as there directed; but if this cannot be had in readiness let (No. 3 page 145, or No. 60 page 238) be given; these will contribute to correct the acrimony of the poison, and to carry it off by stool.

After some one of the aforesaid drinks has been given, administer the following, in order to des-

troy the effects of the poison, and to assist the purging drink in forcing a passage through the intestines.

(RECIPE, No. 63.)

TAKE—Salt of tartar, one ounce ;

Castor oil, four ounces ; (or in its stead, four ounces of Olive oil, if the former cannot be procured in time)

Tincture of opium, half an ounce ;

Mix, and give it in a quart of warm gruel, and repeat it twice a day.

If the animal be in good condition, let three quarts of blood be taken away.

By a strict attention to the above method of treatment, there will remain but little doubt of a speedy cure.

SECTION XXIV.

The Bite of Venomous Reptiles.

In this Kingdom there are but few *Poisonous Animals*, compared with those found in warmer climates, where they so often prove fatal both to man and beast.—The *Viper* or the *Adder*, is most common in this Country, and the bite of these reptiles is often attended with dangerous consequences. Neat Cattle are more liable to be stung with these reptiles, than any other of the domestic animals: some instances have been known (when the tongue of the beast has been stung while grazing) that have proved mortal.—Adders seldom attack cattle, except the latter disturb them with grazing; this is the reason why so many are bitten about the head, and sometimes upon the feet.

The stings of the *Hornet*, *Wasp*, and *Bee*, are attended with considerable pain and inflammation, and require a treatment similar to the former.—The following liniment, will be found a power-

full remedy, in checking the progress of the poison, and in expelling it from the part affected.

(RECIPE, No. 64.)

TAKE—Olive oil, one pint;

Strong spirits of hartshorn, eight ounces;

Opodeldoc, twelve ounces;

Spirits of turpentine, four ounces;

Tincture of opium, ten ounces;

Put them all together in a bottle, and shake them well every time they are used.

Let this liniment be well rubbed upon the part affected, two or three times a day, until the swelling and inflammation abate. In some cases that are more dangerous than others, the parts affected, especially those about the head, may be fomented with the following preparation.

(RECIPE, No. 65.)

TAKE—White poppy heads, half a pound;

Marshmallow roots, Plantain leaves, and Wormwood tops, each one handful;

Bruise them well and boil them in two gallons of ale dregs.

Foment the part affected three times a day; and after each time, rub the above liniment well in.—If any feverish symptoms should appear, (which frequently happen during the hot weather in summer) it will be needful to take from three to four quarts of blood away, and in the space of four hours after, to give the purging drink (No. 3 page 145, or No. 60 page 238) as there directed.

SECTION XXV.

The Downfall in the Udder of Cows.

This is a disease of the utmost consequence to the owners of Neat Cattle.—Young Cows in high condition are the most liable to it, especially at the time of calving; such as are more aged, are the most subject to it during hot and sultry weather, particularly those which are fattening for the shambles: when this is the case the loss is considerable, a summer's keep being generally thrown away to the loss and disappointment of the owner.

Cows of a gross habit of body, when overheated, or when they have taken cold, are very liable to it at all seasons.

This disorder makes its appearance in an inflammatory tumour, collected from a gross habit of body, and deposited upon some part of the lacteal vessels; where its presence is quickly discernible by lessening the quantity of milk, and changing it to a ragged, bloody and corrupt appearance. At other times, the milk or corruption is totally stopped, and the tumour gradually proceeds to a state of suppuration: when this is the case it must be opened with a lancet, or one or more of the paps cut off, as may appear most convenient for discharging the matter.

In some instances it may be found necessary, to cut off the whole of the udder; when this is needful, it will require a man of much skill to perform the operation.—The bleeding of these wounds must be stopped, by applying the styptic powder (No. 77,) which may if necessary be supported with a proper bandage across the loins: and after the blood is stopped (which may be expected in fourteen hours) let the wound be dressed with proper digestives.

It will be of the greatest benefit to the owner, to prevent this disease taking place, if possible; for if permitted to proceed to the state above described, the loss of time and trouble will be considerable. As soon as the downfall is discovered, if the animal be in the pasture, fetch her out; and take from three to four quarts of blood away according to her size and strength.—If bled at night she may stand in an open yard till morning, and then give her a purging drink, either (No. 3, page 145, or No. 60, page 238) as there directed: if it is a very stout beast, add four ounces more of salts to the drink, which will be found to operate sufficiently in the space of fourteen hours; if not it may be repeated. By these means the inflammation will quickly disappear.

The udder may be well rubbed with the following mixture, which will be found an excellent remedy for all inflammatory tumours in these parts.

(RECIPE, No. 66.)

TAKE—Soft soap, and Oil of bays, of each half a pound;
Spirits of turpentine, eight ounces, by measure;
Camphorated spirits of wine, four ounces;
Mix well together for use.

Let this mixture be well rubbed on the part affected every night and morning after the Cow has been milked; and if very bad she may be milked in the middle of the day, and her udder well bathed with cold water. By frequent milking, and the application of the above liniment, the inflammation is generally removed in a few days. After the purging drink has ceased to operate, let the following drink be given.

(RECIPE, No. 67.)

TAKE—Aniseed, and Turmeric, fresh powdered, of each one ounce;

Juniper berries, and Nitre, of each, two ounces in powder;

Resin, in powder, six ounces;

Treacle, four ounces;

Mix and give in a quart of cold ale.

It will be proper to repeat this drink every third day, for three or four times; or the following may be given.

(RECIPE, No. 68.)

TAKE—Nitre, two ounces;

Alum, in powder, four ounces;

Dissolve them in one quart of boiling ale;—When cold, add

Resin, in powder, six ounces;

Juniper berries, and Ginger, in powder, of each two ounces;

Treacle, three ounces;

Mix them all together, and give for one drink

This may be repeated every third day in the same manner as the former.

These are excellent drinks for curing the down-fall in the udder of Cows; and in slight cases one is generally sufficient to carry it off.—If it be repeated every month or five weeks, it will totally prevent its return, and give time for the animal to fatten: but if this be neglected, the season may be lost, and the beast be in a worse condition at the latter end of the year than it was before it was turned out in the spring.—It therefore behoves every person to use his best endeavour to prevent this disease, and if possible not to suffer it to proceed to a state of suppuration.

SECTION XXVI.

Wounds.

Wounds are common to Horned Cattle as well as others, and it is of considerable importance to know how to treat them in all their different situations in the body ; as the management must vary according to the part where the wound is seated, and the circumstances under which it takes place : the animal's constitution and habit of body, must also be considered, as well as the immediate structure of the divided substance ; and whether the wound be made with a sharp instrument or a blunt one ; if with the former, and the wound be not considerable, it will be advisable to attempt a union by the first intention ; which may be performed in the following manner.

First, cleanse the wound from dirt, and all extraneous matter ; then pour in a sufficient quantity of Restorative Balsam, and bring the edges of the wound together, and close it neatly with a proper suture, as follows : take a flat crooked needle

and a thin white leather cord, well tallowed, which is preferable to either silk or thread.—Every stitch across the wound should be tied, and an inch allowed between each stitch; this will in general be found sufficient for most purposes.—When the parts are properly closed, take a pledget of tow, or lint, and soak it in the Balsam, and apply it over the mouth of the wound; then secure it well on with a proper bandage or roller: the bandage may be taken off once a day, and fresh pledgets soaked in the Balsam, applied and rolled on as before. This kind of union is very difficult to accomplish on the Ox, except on the lower extremities.

Cattle are more liable to accidents of this kind in the summer than any other time, in consequence of their gadding about and breaking out of their pastures; likewise, when strange cattle are intermixed they often fight and are apt to gore one another with their horns.

Wounds that are in a fleshy part, deep, and considerably bruised, require a different treatment.—The inflammation is very often great; in which the constitution appears to sympathize; the pulse is strong, and feverish symptoms gene-

rally begin to appear: unless the wound takes a favourable turn, a gangrene will ensue, which indicates an approaching mortification; and if not timely checked, death may be expected.

In cases so desperate, every means should be used to support the animal, and to check the gangrenous serum, in order that suppuration may be promoted.

First, examine every direction of the wound, with a probe, where it can be had; if this is not at hand, the safest way is to use a candle, which is preferable to a probe in all deep wounds in the fleshy parts.—Then take a sufficient quantity of finely powdered Nitre, and sprinkle it over the wound both inside and out; rub it gently in and afterwards dress the wound with the following styptic oils.

(RECIPE, No. 69.)

TAKE—Linseed oil, one quart, put it in a pot that will hold three times the quantity;—Then add by a little at a time,

Oil of vitriol, four ounces, and keep it constantly stirring until united;—Add

Spirits of turpentine, one pint;

Mix by a little at a time, and keep stirring till it is united. By this method they will be properly mixed.

The manner of using these oils will depend on what part of the body the wound is made, and the position into which it may be necessary to put the animal at the time of dressing. Let a sufficient quantity be poured into the wound, and gently rubbed round with the finger, if long enough to reach the bottom; if not let a candle be employed; with this, the oils may be introduced to the bottom of the wound. Where this is not practicable, a tent of tow or lint may be dipped into the oils, and introduced to the bottom with a probe: the tent must be sufficiently long, so as to admit of one end hanging out of the wound, by which it may be taken out at pleasure and fresh put in.

These oils warm and stimulate the injured parts and quickly put a stop to all gangrenous appearances, to which wounds of this nature are liable. These oils seldom require to be used more than once or twice, and that chiefly in wounds that are deep and much bruised, where there is some tendency towards a gangrene.

Such wounds as have been neglected at first, and have assumed a gangrenous disposition, may be dressed with strong oil of vitriol, by dipping a skewer in it and applying it all over the wound, for several times together.—Immediately after using either of the above, let the wound be dressed with the following digestive ointment.

(RECIPE, No. 76.)

TAKE—Yellow basilicon ointment, half a pound ;
Black pitch, Horse turpentine, Tar, and Linseed oil,
of each four ounces ;
Melt them all together ;—Then add
Spirits of turpentine, four ounces ;
Mix and keep in a pot for use.

The best method of using this ointment is to put the beast in a proper position, so that it may reach the bottom of the wound.—Then take a sufficient quantity of the ointment, and melt it in an iron ladle, and pour it new milk warm into the wound ; cover it over with a pledget of tow dipped in the same, and fasten it on either with a roller, or by taking a few stitches across. The wound may be dressed once a day, every other day, or every third day as may be thought neces-

sary.—If the inflammation and swelling be considerable, it may be fomented (after the wound has been dressed) with the following fomentation.

(RECIPE, No. 71.)

TAKE—Camomile flowers, four ounces;

White poppy heads, twelve in number;

Large size linseed, bruised, half a pound;

Marshmallow roots, and Elder leaves, bruised, of each one handful;

Boil them in two gallons of ale dregs.

Foment all the parts affected, two or three times a day with hot flannels, well wrung out of the above fomentation; after each time, let the tumour and all about the wound be well rubbed with the following liniment.

(RECIPE, No. 72.)

TAKE—Oil of bays, Elder ointment, and Marshmallow ointment, of each four ounces;

Camphor, one ounce and a half, dissolved in four ounces of spirits of turpentine, by rubbing in a marble mortar;

Then mix the whole together, and keep it well tied down in a pot for use.

This liniment will soften all kinds of hard tumours about wounds, and remove the inflammation.

If strict attention be paid to the above described method of application, the wounds though ever so bad, may in a short time be brought to a state of suppuration; by which, the swelling and inflammation will soon disappear, and the bottom of the wound will begin to heal and fill up with little granulations of flesh, as the discharge begins to diminish: in cases of this kind, it frequently happens that these granulations become too luxuriant, and require the application of medicine to keep them down.—Proud flesh in recent wounds differs in general, from that in old wounds; in the former, it may easily be kept down with the following powder; but in the latter it will require much stronger caustic medicines.

(RECIPE, No. 73.)

TAKE—Resin, in powder, two ounces;

Bole armenic, in powder, one ounce;

Burnt allum, and blue Vitriol, in powder, of each half an ounce;

Mix them all together, and keep in a bottle for use.

After the wound has been dressed with the digestive medicines, as stated before, dust these powders once or twice a day, all over the surface of the wound.—If the wound only requires healing, it may first be anointed with the following tincture, and the powders afterwards dusted on.

(RECIPE, No. 74.)

TAKE—Restorative balsam, and tincture of Myrrh, of each two ounces ;

Aquafortis, half an ounce ;

Mix them gently together, and keep in a bottle for use.

These powders and tincture, will generally keep down all superfluous flesh, and assist nature in healing up the wound.

Wounds that penetrate into the cavity of the *chest*, require nearly the same treatment as other fresh wounds ; in some cases it will be advisable to omit using the styptic oils (No. 69, page 255).

Wounds of the *abdomen* or *belly*, require persons of skill and judgment in the proper management of them ; for if any of the intestines should be displaced, or exposed to the air, it might endanger

the life of the animal.—The following lotion will be found useful for purposes of this kind.

(RECIPE, No. 75.)

TAKE—Nitre, in powder, half an ounce ;

Goulard, two ounces ;

Camphorated spirits of Wine, four ounces ;

Warm water half a pint ;

Mix, and keep in a bottle for use.

In all accidents, where part of the intestines is exposed to the air ; they may be well bathed with this lotion new milk warm, and afterwards anoint them over with the liniment (No. 72, page 258) then endeavour to replace them, and support them with a roller or bandage.—The diet of the animal in cases of this kind, should chiefly consist of bran mashes, with a little ground barley and powdered linseed mixed in it.

Hemorrhages in wounds frequently happen ; it is therefore highly necessary that every one should be acquainted with the course of the arteries.—Whenever a considerable blood-vessel is wounded or divided, and the hemorrhage is likely to prove dangerous ; our first care must be, to stop the

bleeding by pressure, provided the wound be in a situation to admit of the application of a roller or bandage. Pressure, where it can be properly applied is certainly the best remedy : but as there are many cases that will not admit of this treatment, the stoppage of blood may be attempted by actual cautery, where the parts will allow it ; or you may try to stop the bleeding by applying the following styptic.

(RECIPE, No. 76.)

TAKE—Equal parts of stinging Nettles, and blue Vitriol ;

Bruise them in a mortar till a pulp is formed, and apply it to the wound.

This will in general stop the bleeding almost as soon as applied : or the following powders may be used. Sometimes it is most convenient to tie up the blood-vessel ; but these circumstances must be left to the judgment of the operator, at the time.

(RECIPE, No. 77.)

TAKE—Blue Vitriol, green Vitriol, white Vitriol, allum, fine

Flour, and bole Armenic, of each two ounces ;

Powder, and mix them all together for use.

The mouth of the divided vessel, must be covered over with a sufficient quantity of these styptic powders, and pressed to with lint or tow, and this well secured by a roller or bandage.

SECTION XXVII.

Wounds of the Joints.

These are not so common among Horned Cattle as among Horses: the former are seldom troubled with any thing more in these parts, than those wounds which are of a common nature; and which generally heal by the first intention: while the latter are subject to severe contusions, that often render them of little use afterwards.

The treatment of wounds in the Joints, greatly depends on the manner in which they have been received.—Such as arise from severe bruises are more difficult to heal, than those received from a cut or rent.—All recent wounds that are attended with swelling and inflammation, should be

fomented with the fomentation (No. 71, page 258) as there directed ; after which, rub them well with the liniment (No. 72, page 258) and dress the wounds with the digestive ointment (No. 70, page 257).—These dressings should not be persisted in more than three or four days ; or till the inflammation and swelling begin to subside, otherwise they might occasion a discharge of Joint Oil.

The following mixture will be found adequate to the cure of most wounds in the joints of Horned Cattle.

(RECIPE, No. 78.)

TAKE—Mel-Egyptiacum, two ounces ;

Compound tincture of myrrh, and restorative balsam,
of each two ounces ;

Aquafortis, half an ounce ;

Mix, and keep them in a bottle for use.

The wound if possible should be filled with this mixture, either by injection or by pouring it in, and its mouth should immediately after be stopped up with lint, to prevent it from running out, and supported with a roller or bandage. This method

if persevered in, will in most cases be found sufficient to cure all wounds in the joints of Horned Cattle.

SECTION XXVIII.

Strains and Bruises.

These accidents befall Cattle of all descriptions daily ; and as most persons are well acquainted with them, they require but little explanation here.

Strains or *Bruises*, may affect either the muscles, ligaments, or tendons: strains of the former are generally attended with considerable inflammation ; and the latter with a rupture or breaking down of the tendon: but this last is not common among Horned Cattle.—Strains of the stifle, whirl-bone and back, are very frequent amongst these animals, and are chiefly occasioned by one beast riding or romping on the other. The cure in all the different parts, must first be attempted,

by removing the inflammation and swelling.—
The following mixture, will be found suitable
for every purpose of this kind.

(RECIPE, No. 79.)

TAKE—Spirits of sal-ammoniac, oil of olive, spirits of turpentine, and spirits of wine, camphorated, of each three ounces ;

Mix, and keep in a bottle for use.

These oils will be found excellent for all kinds of strains, bruises, and hurts in different parts of the body. Let them be well rubbed in, on the part affected, once or twice a day ; and if necessary, they may be assisted by fomenting the parts first with (No. 71, page 258) as there directed : if any feverish symptoms should appear, it will be proper to keep the body open, by giving the purging drink (No. 3, page 145).

Strains of the hip-joint, shoulder, stifle, and back, being more deeply seated, require a more powerful application than the former. In these cases, the following will be more likely to produce the desired effect.

(RECIPE, No. 80.)

TAKE—Opodeldoc, four ounces;

Spirits of sal-ammoniac, and spirits of turpentine, of
each two ounces;

Oil of origanum, one ounce;

Oil of olives, two ounces;

Cantharides, in fine powder, two drachms;

Mix them together, and keep them in a bottle for use.

These oils will be found very powerful in curing deep seated strains, in the fleshy parts of the body; they will dissolve the coagulated lymph, which often remains in strains of long standing. They must be well rubbed on the part affected, once or twice a day, as may be thought most proper.—After the pain, inflammation, and the effects of the oils are gone off, a weakness in the part frequently remains for a considerable time, which may be removed by applying the following strengthening plaister

(RECIPE, No. 81.)

TAKE—Black pitch, half a pound;

White pitch, four ounces;

Gum plaister, and strengthening plaister, of each two ounces ;

Melt them over a slow fire ; when dissolved, take them from the fire, and add grains of Paradise, and cummin-seed, fresh powdered, of each one ounce ; stir them well together, and when new milk warm apply the plaister all over the part with a spatula, and immediately cover it over with short wool, or flannel, or a flannel bandage if more proper for the situation.

This will warm and strengthen the part : if it be stuck on with wool, let it stop on till it falls off of itself ; but if with flannel, cut the stitches a month after, and then let it take the same course.

SECTION XXIX.

Cancerous Ulcers.

These are the most difficult to heal of any ulcers to which Horned Cattle are liable.—They generally make their first appearance in a hard livid tumour, seated in some of the glandular parts of

the body : some of these are moveable, and others more fixed ; some are inflamed and quickly break out, and discharge a thin acrid ichor ; at other times they discharge a thick yellow matter, and the wounds are apt to fill up with fungous flesh.

The cure greatly depends upon the particular part of the glands where the ulcer is seated. There are some parts that will admit of a total extirpation ; which may be done with a suitable knife, or (if preferred) by actual cautery. Some persons attempt to remove every excrescency by means of caustics. The choice of these different methods must be left to the judgment of the operator, who will of course adopt that which is most convenient at the time of operating. After the wound has been thoroughly cleansed from all extraneous matter, let it be touched all over with lunar caustic, or sprinkled with red precipitate ; and afterwards dress it with the following mixture.

(RECIPE, No. 82.)

TAKE—Egyptiacum, four ounces ;

Compound tincture of myrrh, and spirits of turpentine,
of each two ounces ;

Sublimate, three drachms ;

Spirits of salt, half an ounce ;

Mix, and keep them in a bottle for use,

Let the wound be dressed with small pledgets of lint or tow, dipped in this mixture, once a day : and if any superfluous flesh should appear, it must be kept down with the above caustic ; or instead of this the wound must be sprinkled all over with the powders (No. 77, page 262) before it be dressed with the mixture. As wounds dressed with the above, seldom fill up in the same manner as those dressed with digestives, it may therefore be in some cases advisable, after the wound has been well cleansed, to use one part of the digestive ointment (No. 70, page 257) and two parts of the above mixture well mixed together on a slab, with a spatula. The wound may be dressed once or twice a day with this, spread on lint or tow.

Purging is sometimes advisable in cases of this kind, and may be administered once a week for three or four weeks together. Either of the purgatives (No. 3, page 145, or No. 60, page 240) may be given as there directed ; by these the great flux of humours will be carried off by

stool, and cause the above medicine to act more powerfully on the wound. When these hard tumors, or schirrous swellings of the glands first make their appearance, they with ease may be removed by the following mercurial ointment.

(RECIPE, No. 83.)

TAKE—Quicksilver, half a pound;

Venice turpentine, four ounces;

Spirits of turpentine, three ounces;

Rub them together in a marble mortar till all the globules disappear:

Then add hog's lard, one pound;

Work them well together till properly incorporated, and keep the mixture in a pot for use.

A sufficient quantity of this ointment must be well rubbed on the parts afflicted once a day for eight or ten days together. Then leave off the dressing for a month, and if any substance remains after that time, the ointment may be repeated as before. In some cases the following compound mercurial ointment may be more efficacious.

(RECIPE, No. 84.)

TAKE—Mercurial ointment, (No. 83, page 271) two ounces;

Strong aquafortis, two drachms;

Mix them well together; then add
Cantharides, in fine powder, two drachms;
Mix them well together for use.

This must be well rubbed on the part affected every morning for six days together; then leave off for a month or six weeks, and if the tumor be not dispersed in that time, repeat the dressing a second time as before. In this manner it may be repeated as often as found necessary. There is no danger in the application of either of these on any part of the animal's body, provided they are prevented from licking it.

SECTION XXX.

The Foul in the Foot.

Horned Cattle of all ages are liable to this complaint; but Cows of a gross habit of body suffer most by it. It generally first makes its appearance betwixt the claws or hoofs in the form of a hard crack, attended with considerable

inflammation, and in a short time will discharge a fetid and offensive matter, similar to that of the grease in horses' heels. At other times it makes its appearance in the form of a large tumor upon the coronet, between the hair and the hoof, attended with violent pain and inflammation. The pain is often so considerable, as to reduce them of their flesh till they become a mere skeleton. If this disease first makes its appearance between the claws, wash the part clean from all dirt and filthiness; when dry, take a pair of cow-hopples (such as are used for tying their legs at the time of milking), or a rope of the same thickness; and then chafe the part affected betwixt the claws till all of a glow, afterwards dress the part with a wood skewer dipped in butter of antimony, oil of vitriol, or aquafortis, and let them dry one hour after. This may be done for two or three days together; but if the part swells and appears much inflamed, let it be well rubbed with the liniment (No. 72, page 258) and then, if the tumour be likely to suppurate, apply the following poultice.

(RECIPE, No. 85.)

TAKE—Tar, one pound, and melt it over the fire; then add
Linseed, in powder, half a pound;

Mix, and when new milk warm, apply it on the part affected.

The liniment and poultice must be repeated once a day until the tumour is ripe to be opened with a lancet: afterwards dress the wound with (No. 82, page 269) and continue the poultice and liniment until the inflammation and swelling be reduced, and the parts acquire their former state. The cure may be finished by continuing to dress the wound with (No. 82, page 269) or (if that be too strong) the sublimate may be omitted.—When the foul appears to proceed from a superabundant flow of humours collected from different parts of the body, and settled down into the foot, the cure may be accelerated by giving the beast a purging drink (No. 3, page 145) once a week, for two or three weeks as there directed.

SECTION XXXI.

To dry a Cow of her Milk.

This is a subject with which every gentleman grazier ought to be well acquainted. It is frequently found necessary to dry Cows of their milk, at all times of the year; in order that they may the better be fed for the shambles. Some Cows are more difficult to dry than others, by reason of their giving so large a quantity of milk, and the gross habit of body peculiar to some beasts.

Without great care and management these will be liable to the downfall, in the udder, &c. or otherwise it may terminate in some fatal inflammatory disease.

Cows that are apt to milk themselves, are difficult to dry: they should therefore be dried early in the spring, while at dry meat. Others may be dried, either in the pasture or in any other place. Such Cows as in the pasture, give

a considerable quantity of milk, and are in good condition, ought to be fetched into a fold-yard over night, and from three to four quarts of blood taken from them. The next morning give the following drink.

(RECIPE, No. 86.)

TAKE—Roch-allum, in powder, six ounces ;

Bole armenic, three ounces ;

Mix, and put them in a pitcher, then pour upon them a pint and a half of boiling ale ; afterwards add one pint of good vinegar, and give when new milk warm.

The Cow must be milked clean at the time the above drink is given ; and, two hours after may be turned into her pasture. Four days after, if her udder be hard and full, let her be fetched out of the pasture, milked clean, and the drink repeated as before.

As some Cows give so much milk that it renders them very difficult to dry, it is frequently found necessary to repeat the drink and milking every fourth day, for three or four times before they can be completely dried. Or, either of the following drinks may be given, which are equally useful as the former, if not more efficacious.

(RECIPE, No. 87.)

TAKE—Red wine tartar, in powder, half a pound ;
Roch allum, in powder, one ounce ;
Treacle, four ounces ; put them in a pitcher, and pour
a quart of smith's forge water boiling hot on them ;
stir the whole together, and give it when new milk
warm.

(RECIPE, No. 88.)

TAKE—Allum, in powder, four ounces ;
Red wine tartar, in powder, five ounces ;
Bole armenic, in powder, two ounces ;
Treacle, four ounces ;
Mix, and put them in a pitcher, and pour a quart of
smith's forge water upon them boiling hot :
Stir the whole together, and give it when new milk
warm.

These are two excellent drinks, as well as the former, and are very powerful in drying up their milk. They may be repeated in the same manner as the first. If one of these drinks were given every month during the summer, it would prove a means of preventing the downfall in the udder.

SECTION XXXII.

Angle-Berries.

These are cutaneous tumours growing out above the surface of the skin, and of different sizes, with a very disagreeable appearance.—Young Heifers, or Cows of their first and second Calves, are the most subject to them.—These fleshy excrescences make their appearance on different parts of the body.

Those upon the udder are not only disagreeable, but cause the Cow to be very troublesome to milk. They rise from a small base, and hang in a pendulous form of different sizes.

The common method made use of to extirpate such excrescences, is, to fix a ligature round their bases, and to suffer them to rot off themselves. Others, after they have been well secured with a strong cord, or twine, will cut them off with a sharp knife, and anoint the part

with oil of vitriol. But the most ready and effectual way is, to throw the animal down, and take hold of the angle-berry at the base with a pair of broad flat barnacles (such as are used in farriery): then take a firing iron, after it has been sufficiently heated, and burn it off; touch the seared part all over with a skewer dipped in oil of vitriol, or aquafortis. Either of these will destroy the roots, and prevent them from growing again; but if they be attended to in time, before they come to their full growth, they may be eradicated by applying the following ointment.

(RECIPE, No. 89.)

TAKE—Green vitriol, white vitriol, and blue vitriol, of each one ounce, in fine powder;

Camphor, three drachms, dissolved in half an ounce of rectified spirits of wine;

Sugar of lead, half an ounce;

Hog's lard, half a pound;

Mix them well together on a slab for use.

A small quantity of this ointment must be rubbed on the angle berries, warts, or any excrescences that grow upon the udder or other

part of the body, every night and morning.— This ointment will gradually waste them away without injuring any other part.

SECTION XXXIII.

Sore Teats.

Some Cows are more subject to Sore Teats than others; and they are liable to this complaint at all seasons of the year, particularly such Cows as have newly calved. If the teats are affected in the summer, they often become ulcerated; and flies plague them to such a degree as to render them difficult to milk. It is a great nuisance at the time of milking, as blood and corruption are liable to pass between the fingers into the milk. The following ointment should be kept in readiness for purposes of this kind.

(RECIPE, No. 90.)

TAK E—Elder ointment, three ounces;

Marshmallow ointment, three ounces;

Bees wax, two ounces;
Melt them together; and add
Sugar of lead, in powder, one ounce;
Allum, in powder, two ounces;
Mix, and stir them together till nearly cold.

The Cow's teats may be well rubbed with this ointment every night and morning after milking. If in the summer, and the flies plague them, add one ounce of asafœtida, in powder, and dissolve it along with the ointments and wax. This will prevent the flies from teasing the animal.

SECTION XXXIV.

The Mange.

This disease is well known to most graziers, and therefore requires but little description. It is seated in the skin, and for the most part proceeds from scanty keep during the winter: it makes its appearance early in spring, as soon as

the warm weather begins to set in. The symptoms are as follow: the skin or hide, appears fast on all parts of the body; and every time the beasts rub themselves the hair comes off, and a thick white scurf, of a scabby appearance, is to be seen in a short time.

In the cure of this disease, mercurial ointment cannot be used with safety among Horned Cattle; as there is hardly a possibility of preventing them from licking themselves; but either of the following ointments may be used with safety for all diseases of this kind.

(RECIPE, No. 91.)

TAKE—Hog's lard, two pounds;

Spirits of turpentine, half a pint;

Put them in a pot that will hold twice the quantity; then gradually add

Oil of vitriol, three ounces; and keep gently stirring until mixed: afterwards add

Sulphur vivum, in fine powder, half a pound;

Mix them all together for use.

Or the following may be used, if judged more proper.

(RECIPE, No. 92.)

TAKE—White hellebore, in powder, half a pound ;

Soft soap, one pound ;

Hog's lard, one pound ;

Spirits of turpentine, one pint ;

Flowers of sulphur, half a pound ;

Pearl ashes, in powder, three ounces ;

Mix them all together into an ointment.

All the infected parts must be well rubbed with this ointment, every third day for three times. Let it be done under a warm shade when the sun is out ; or otherwise an iron should be heated and held at a proper distance, whilst another rubs it on. Thus the medicine will produce a good effect, and very often in slight cases one dressing will be found sufficient, if the ointment be well applied. At the same time you must give the following drink.

(RECIPE, No. 93.)

TAKE—Aniseed, and cummin-seed, fresh powdered, of each
two ounces ;

Grains of Paradise, and nitre, in powder, each one
ounce ;

Flowers of sulphur, two ounces ;

Crude antimony, in very fine powder, half an ounce ;

Treacle, four ounces ;

Mix for one drink, and give it in a quart of warm ale.

This drink may be repeated every third day for three times, or more if necessary. It will be found to possess the requisite quality of promoting the animal secretions, by which nature will be regenerated.

SECTION XXXV.

Lice in Cattle.

Lice in Cattle, like the former disease, require no description, as this filth is always visible to the eye ; if not, by shedding the hair they may soon be made to appear. The Cattle most subject to lice are those which through bad keep and poverty, are reduced to a low state, so that nature is not able to cast off her old coat, in

consequence of this, an extra harbour is left for the vermin to accumulate in.

Different kinds of medicines have been applied for the destruction of these lice. Mercurial ointment (such as is used for the scab in sheep) would prove the most effectual in destroying them, if it could be used with safety: but as beasts are so liably to lick themselves, it would endanger the life of the animal, by bringing on a salivation upon the glands. It will therefore be better to omit its use, and to apply the following, which will be found to answer.

(RECIPE, No. 91.)

TAKE—Hog's lard, two pounds ;
Spirits of turpentine, half a pint ;
Oil of vitriol, one ounce ;
Mix them gradually, and when united, add
Whale oil, half a pint ; and
Stavesacre, in powder, half a pound :
Mix all together into an ointment.

A sufficient quantity of this ointment may be rubbed on all parts of the body where lice are found, and repeated a second time in five or six

days after: twice dressing is generally sufficient to clear them of this kind of filth. If the practitioner thinks proper, he may use the ointment (No. 91, page 282, or 92, page 283) which will in general prove of equal efficacy; or, he may use the following wash.

(RECIPE, No. 95.)

TAKE—Stavesacre, in powder, half a pound;

Soft soap, half a pound;

Boil them in five quarts of chamber ley till one is wasted,

Wash all parts of the body well where lice are found with this wash, when new milk warm, and repeat as above if needful. It will be necessary to give to Cattle, when reduced to so low a state, a good nourishing drink or two, such as (No. 1, or 2, page 143) as there directed.

SECTION XXXVI.

Warbles.

These proceed from a fly, well known by the name of Gad Fly, Breeze, or Ox Fly, which punctures small holes in the backs of Horned Cattle, and there deposits its eggs. These being speedily hatched by the heat of the animal's body, a small tumour arises, containing a grub, and having a small hole in its centre, that answers as a breathing place for the insect, and also to cast out the superfluous matter, which, if confined, might soon produce a large abscess and destroy the grub. Country people frequently dislodge these creatures by pressing the finger and thumb on each side of the lump. The readiest way of destroying these worms, is to pull off the scab that generally covers the mouth of the hole, and pour a few drops of the black oils (No. 69, page 255) into the orifice of the wound, or a few drops of the spirits of turpentine may be used where the other is not in readiness.

SECTION XXXVII.

To make a Cow take the Bull.

It is sometimes necessary to promote this desire in a Cow, as otherwise the most profitable time for making butter and cheese might be lost: but it is very rarely wanted, if the animal be healthful and in good condition; and it is much better when nature is permitted to perform her own office, but this cannot always be waited for.—The following drink therefore may be given.

(RECIPE, No. 96.)

TAKE—Cummin-seed, aniseed, grains of Paradise, and bay-berries, fresh powdered, of each two ounces;
Cantharides, in fine powder, one drachm and a half;
Mix them all together for one drink.

This drink may be given in a quart of warm milk at any time of the day, on a full stomach, and, if convenient, let them stand two hours after without meat; then turn them into their

pasture, or feed them as usual. If this drink has the desired effect, the Cow will take the Bull in the course of eight or ten days: if not, the drink may be repeated with the addition of half a drachm more of cantharides mixed in it. If she be a very large Cow, the quantity of flies may be increased to two drachms and a half, but this is very rarely necessary. It will sometimes bring on a strangury; but when this is the case give her the following drink.

(RECIPE, No. 97.)

TAKE—Nitre, in powder, two ounces;
Sweet spirits of nitre, one ounce;
Tincture of opium, half an ounce:
Mix, and give in a quart of linseed tea.

This drink may be repeated if found needful.

SECTION XXXVIII.

Bull Burnt.

This is a local disease, affecting the sheath of the Bull ; the parts become foul, and full of cancerous ulcers which inflame the Bull's yard, and cause the sheath to swell.—The most effectual way of curing this disease is, to throw the Bull down and turn him on his back, with his belly upwards. Then take a linen cloth and fold it round his yard, and gently draw it out of the sheath till you can see to examine all the ulcerated parts, which should be bathed and washed with the following lotion.

(RECIPE, No. 98.)

TAKE—Camphorated spirits of wine, five ounces ;

Sugar of lead, one ounce ;

White vitriol, two ounces ;

Soft water, one quart ;

Mix, and keep them in a bottle for use.

The Bull should be dressed twice a week with this lotion, and kept from bulling cows untill well. Care must be taken every time he is dressed, that all the parts are properly washed or bathed with the mixture.—Or, he may be dressed in the same manner with the following mixture which is more powerful.

(RECIPE, No. 99.)

TAKE—Sugar of lead, White vitriol, Blue vitriol, and Bole Armenic, of each one ounce ;
Boiling water, one quart ;
Mix, and when new milk warm, put them in a bottle for use.

This is a powerful mixture but it should not be used the first time of dressing ; afterwards, it may be used with safety. During the time of his getting better, it will be proper to give the Bull the purging drink (No. 3, page 145) with the addition of four ounces more salts.—Give the medicine as directed in the page here referred to, and repeat it once a week for three times.

The matrix or womb of a Cow, is sometimes affected by the bull, which causes the parts to in-

flame and swell, likewise to discharge a disagreeable ichor ; and at the time of staling she appears to have considerable pain.—All the parts that appear to be infected must be bathed with the lotion (No. 98, page 290) the other being too strong for a cow ; and a linen rag may be soaked in the lotion, folded round the finger, and introduced into the womb ; or some of the lotion may be injected up with a syringe. A few dressings will in general be found sufficient.

SECTION XXXIX.

*Proper treatment of Cows, that sink, or slip,
their Calves.*

Abortion, or Cows slipping their calves, in an early period of gestation, is a great misfortune to the owner : it appears that Cows in the best condition, are the most liable to this calamity.—It is sometimes occasioned by accidents, which frequently happen to them during the summer :

at other times, it has appeared of an epidemical nature ; several having slipped their calves in the course of a few days : in this case it seems to proceed from debility, and a relaxation of the generative parts.

Cows are the most liable to slink their calves towards the latter end of the year ; while feeding upon fog, or autumnal grasses ; or on low marshy and fenny grounds : and at other times it has proceeded from the smell of *carrion*, which has been exposed in the pasture, or too slightly covered with earth.—The sense of smelling in Horned Cattle is very acute : they will sometimes, on a warm day, in an open pasture, collect in great numbers to a particular spot, where some dead carcass had been buried several years, and with their horns and feet tear up the ground in a surprising manner, at the same time making a most horrid noise.

Cows that are in danger of slipping or casting their young, before the time of gestation, should be brought from the pasture over night, and from two to three, or four quarts of blood taken from each beast, which ought to stand in an open yard till next morning ; then give the following drink.

(RECIPE, No. 100.)

TAKE—Alum in powder, six ounces ;
Peruvian bark, in powder, half an ounce ;
Aniseed, fresh powdered, two ounces ;
Treacle, four ounces ;
Mix for one drink.

Put these ingredients into a pitcher, and pour a quart of boiling water upon them ; cover the whole down till new milk warm, then give it to the beast.—This drink should be repeated in ten days, and there is every reason to believe, that it will produce the desired effect.

Some Cows are constantly bulling every fortnight or three weeks, during the summer, a better drink cannot be given to put a stop to this, and also to make her hold to the bull ; the drink must be given to the cow two hours after bulling : it strengthens and braces the parts of generation ; but if she be in good condition let two quarts of blood be taken from her.

SECTION XL.

The Nature and Property of Blood.

This liquor may justly be called the element, or life of animal nature, which is always in continual motion, circulating through the veins and arteries of all living animals. On a slight examination it may appear homogeneous, but it consists of very dissimilar parts.—When blood is first taken from the animal, it very soon loses its volatile part, which flies off in the form of a vapour, and as the vapour is dissipated the blood congeals and becomes a trembling mass. The principal part of this coagulated mass, is the *crassamentum*, which contains the red colour, and gives it to the other parts; there is also the *serum* or watery part, of the blood, from which is formed the crust on its surface, after taken from the vein: in this serum, besides the *albumen*, (which hardens like the white of an egg) there is a considerable portion of water, likewise a small quantity of ropy mucus; besides these, there is a small portion of sea-salt, fine chalky earth, iron, and fixed air; to which

may be added the elementary fire :—by the joint co-operation of the whole, life is infused into all parts of the body.

It appears that the natural elements of the blood formed by the animal œconomy are, the albumen and the globules: the albumen is the immediate matter of growth and nutrition; the globules never pass the emunctories, except by violent exertion or disease; the morbid, bilious, and other particles that are found in the circulating blood, are rather heterogeneous, than elementary parts of it.

When the animal is in full health and vigour of constitution, the blood is mild and gelatinous, but by disease it is often rendered very acrid.—Those who are desirous of further information, on this subject, are referred to the works of Doctor Hunter.

SECTION XLI.

Bleeding.—Its Utility, and in what cases necessary.

Bleeding, when properly employed, is productive of great and good effects, as also it may do much injury when improperly resorted to. It is useful in checking the progress of all Inflammatory diseases.—The following are the chief symptoms that indicate bleeding to be necessary; viz.

First.—When animals in a thriving state, rub themselves until they fetch off the hair, the spot being frequently covered with a dry scab; in this state not more than half the usual quantity should be taken away at one time.

Second.—In all kinds of Inflammatory diseases where the eyes appear red or inflamed, and the veins puff up, and seem considerably larger than common.

Third.—In fevers, bruises, hurts, wounds on the head; strains in different parts: and

Fourth.—In all other accidents that may occur to the animal, where there is reason to apprehend a stagnation of the blood.

The manner of performing this operation is too well known to require any description.—The Fleam is an instrument in general use for Oxen.

The quantity of blood that it may be proper to take away at one time, cannot here be determined; as it must be regulated according to the size, condition, and the particular disease under which the animal may labour at the time.—In many inflammatory diseases, too much can hardly be taken, provided the beast be not faint, or likely to fall down. A strong healthy beast will bear the loss of three or four quarts of blood, without the least injury; large Cattle, that are attacked with inflammatory fevers, will bear a larger proportion to be taken away at once than usual: but it will be better in these diseases, not to take too large a quantity away at one time, but to repeat it occasionally.—The animal should neither be suffered to drink cold water, nor to graze in the field immediately after; the former may chill the blood, and the latter may cause the orifice to bleed again.

If this operation be performed in the summer-season, it is best to fetch them out of the pasture towards evening; bleed, and let them stand in the fold-yard all night, and next morning take them to their pasture again.

SECTION XLII.

Cow Pox.

It appears from different authors that this disease was never noticed by any one before Doctor Jenner; who is the first man that ever attempted to convince the world in a public manner, of its great utility in protecting the human race, from that baneful disease the small pox. Vaccine Inoculation has been introduced into most parts of Europe, the East and West Indies, besides many other parts of the World. As a substitute for the Small Pox, it appears to have met with the approbation of the public: yet like many other useful discoveries it has had many powerful opponents, and has still many more to contend with.

Some persons conjecture that the Grease in horses' heels, is of the same nature as the Cow Pox; but this is a great mistake, for the contrary may easily be proved.—Some horses have the grease for years together, and are never free from it either winter or summer. The Cow Pox is a disease that gradually proceeds to maturation, and afterwards declines or dies away: it is now beginning to be generally known, among the keepers of large dairies, and is indicated by the following symptoms.

The animals appear heavy and dull with their eyes; their milky secretions are considerably lessened, frequently to more than one half in a few days. The beasts moan, and wander about by themselves. Irregular pustules are seen on the nipples of the Cow; which, at their first appearance, are commonly of a palish blue, or rather of a colour somewhat approaching to a livid, and are surrounded by an erysipelatous inflammation*.

As soon as this disease takes place, a cordial drink may be given, which is very necessary to

* See Medical and Physical Journal, Vol. I. Page 3.

warm and stimulate the solids, and give fresh motion to the fluids, by which nature will be better able to repel the disease. The drink (No. 1, or 2, page 143) may be given as there directed for two or three times. If any feverish symptoms should appear, the body must be kept open by giving one of the following purging drinks as there directed (No. 3, page 145), or (No. 60, page 238). Either of these drinks will be found sufficient to purge the body and check the fever. The teats and udder may be well rubbed with the ointment (No. 90, page 280) twice a day after milking; or the following lotion if there be any objection to the use of the ointment.

(RECIPE, No. 101.)

TAKE—Crude sal ammoniac, in powder, half an ounce;
Wine vinegar, half a pint;
Camphorated spirits of wine, two ounces;
Goulard, one ounce:
Mix, and keep in a bottle for use.

This lotion is more pleasant to use than ointment, and is very suitable for sore teats in general, though they may proceed from other causes. It should be well rubbed on the parts affected twice a day.

SECTION XLIII.

*Wood-Evil, Moor-Ill, Clue-Bound, or Fardal-Bound,
and Pantas.*

A great variety of curious names is given to many diseases in Neat Cattle, by different authors. It certainly would be a great conveniency if nearly one half of them were expunged, and more rational ones admitted.

The Wood-evil chiefly proceeds from debility, occasioned by taking cold when exposed to bleak winds in open commons or pastures. This brings on pain and stiffness in the joints; and if early attended to may be easily removed by giving a few of the drinks (No. 1, or 2, page 143) as there directed. But if the disease be some time standing, it will be more proper to treat the animal in the same way as for the Joint Fellon or Rheumatism. (See Section XXII. page 239).

Moor-Ill, is a state of debility said to be occasioned by the want of fresh water; this may

easily be remedied by removing the beast to a fresh pasture, where it is more plentiful, and by giving a few of the above mentioned drinks for the Wood-evil, Clue-bound, or Fardal-bound.—The animals when in this state, are disposed to be *saped*, or costive; the thin part of the excrement forces its way through the middle, or one side of the more hardened part. This frequently takes place at the commencement of a fever, and requires speedy relief, otherwise the life of the animal will be in danger. Let the purging drink (No. 3, page 145) or (No. 60, page 238) be given as there directed as soon as possible, and repeated until a proper passage is obtained. The beast may be restored in a short time after by giving two or three of the drinks (No. 11, page 159) as there directed.

Pantas, is another species of disease similar to the former, and requires the same treatment.

SECTION XLIV.

On the Diseases incident to Young Calves, and the method of treating a Cow after Calving.

After the extraction of the Calf, proper care should be taken of the Cow, in providing her a suitable place to lie down in ; and also to allow her the privilege of licking her Calf, which not only makes her fond of it, but the friction of the tongue puts the young animal in motion, and will enable it to rise much sooner than it otherwise would. About a quart of the first milk (usually called beesting) should be taken from the Cow before the Calf be allowed to suck ; after which, it may have free access to the Cow.

The milk for the first three or four days being of an opening and purging quality, will evacuate the bowels of the viscid matter called *meconium* ; which is confined in the colon during gestation. If therefore this should not be able to perform the necessary evacuation, recourse must be had

to medicines; such as the following will be suitable for this purpose.

(RECIPE, No. 102.)

TAKE—Castor oil, one ounce;

Salt tartar, half a drachm;

Ginger, in powder, one tea-spoon full;

Mix, and give it in half a pint of warm milk.

This drink may be repeated the next day if the bowels are sufficiently open. It is always advisable to let the Calf have free access to the Cow as soon as it is able to stand; and on the second day the Calf may be tied in a corner of the hovel where the Cow is; and if she has more milk than it can take at one time, it will be proper to milk a part from her, before the young animal is let loose to her: this should be done three times a day for two or three days.

Afterwards let the Calf be taken away, if the Cow's udder be free from kernels, or hard ex-crescent substances, which are found in the udder of most young Cows after calving; otherwise it should be permitted to suck a day or two longer.

The jolting of the calf's head against the udder, greatly assists in dispersing these excrescences, and in preventing the downfall or an inflammation taking place in this part; which might cause much trouble, or endanger the life of the Cow.

The diet and treatment of the Cows, at the time of parturition, must be regulated according to the season of the year: if in the winter, or early in the spring, care should be taken to house them as soon as possible, and to give them warm water and mashes of scalded bran, with a little ground corn in them, twice or three times a day. If in the summer, they require to be kept under a shade, where they can be protected from the sun in the day, and from the cold in the evening, and treated with mashes and warm water for two or three days as above. As the rearing of young Calves from the pail is a distinct branch of farming economy, it could not be properly introduced here. The reader who is desirous of information may see the different methods employed for this purpose in the valuable work referred to below*.

* "The Complete Grazier," 8vo, third Edition.

SECTION XLV.

*The method of treating the Navel String after
Extraction.*

As soon as the Calf has been taken from the Cow and has been properly cleaned, either by the animal licking it, or with a clean linen cloth, let the *Umbilical Cord*, or *Navel-string*, be properly secured with a ligature, in the following manner.

Take a waxed thread of several thicknesses, and pass it several times round it, about two inches from the body, secure it fast, then take a pair of scissars and clip it off a little below the tied part. Care is always necessary in tying the thread, least it cut the navel-string, and cause an effusion of blood that proves difficult to stop, and endanger the animal's life. When this happens to be the case, no time must be lost, and the wound be dressed as soon as possible, with the following styptic mixture.

(RECIPE, No. 103.)

TAKE—Compound tincture of myrrh, two ounces ;

Restorative balsam, two ounces ;

Wine vinegar, half a pint ;

Oil of vitriol, half an ounce ;

Mel-egyptiacum, two ounces :

Mix them together in a bottle, and keep them for use.

Take a pledget of lint or tow, and dip it in the above mixture ; then apply it to the part affected, and support it with a proper bandage round the body. This will in general put a stop to the bleeding in a short time ; or, if thought more proper, the following poultice may be applied.

(RECIPE, No. 104.)

TAKE—Fine flour, half a pound ;

Blue vitriol, in powder, half an ounce ;

Alum, in powder, two ounces ;

Mix them into the consistence of a poultice, with the preceding mixture (No. 103).

This cataplasm, must be spread thick on leather, then apply it to the navel, and support it

with a proper bandage as before. If the part tumefy, and be likely to suppurate, let it be dressed with the following mixture.

(RECIPE, No. 105.)

TAKE—Spirits of turpentine, and spirits of sal-ammoniac, of each two ounces ;

Linseed oil, six ounces ;

Oil of amber, one ounce :

Mix them in a bottle, and keep them for use.

All the swelled part must be well rubbed with this mixture twice a day, and the wound dressed with the digestive ointment (No. 70, page 257) as there directed. Under circumstances of this nature, it frequently happens that the young animal is so much reduced by pain and the loss of blood, as to require medicine to brace and strengthen its relaxed frame.—The following restorative will be found very serviceable in this case.

(RECIPE, No. 106.)

TAKE—Peruvian bark, in powder, and ginger, fresh powdered, of each two drachms ;

Mix, and give them in half pint of new milk.

(RECIPE, No. 107.)

TAKE—Restorative balsam, half an ounce;

Anodyne balsam, two ounces;

Mix, and give them in a quarter of a pint of warm ale and beer.

Either of these may be given and repeated once or twice a day, for a few days, until the Calf recovers its strength. By a strict application to the above rules, and treatment, the life of the animal may be preserved in cases that appear most desperate.

SECTION XLVI.

Diarrhæa, or Dysentery.

This is a disease to which young Calves are very subject, at the age of from two to six weeks; and is chiefly brought on through change

of diet. Some farmers' wives are so penuriously disposed that they will scarcely allow that subsistence which nature requires at so early an age, and for want of which great numbers die.

The time of changing the diet of these young animals is the most difficult. Care should therefore be taken to change it very little for the first fortnight, but to allow it for the greatest part new milk; afterwards bring it to porridge by slow degrees, or otherwise a dysentery, or scouring may be expected to take place, which will greatly weaken the Calf, and if not checked in time will end in a complete dysentery. The symptoms are:—great weakness; loathing of its food; a continual purging; every thing it takes turns acid and coagulates on the stomach. Towards the last stage of this disease the stools become bloody and fetid, a large quantity of the defensive mucus of the intestines is mixed with them; after which a gangrene or mortification soon takes place, and terminates in the death of the animal. All these disasters may be prevented (if timely attended to) by proper management, and the following medicines.

(RECIPE, No. 108.)

TAKE—Rhubarb, in powder, two drachms ;
Castor oil, one ounce ;
Salt of tartar, one tea-spoon full ;
Mix, and give in a pint of warm milk.

This drink will gently purge and evacuate the stomach and bowels of the indigested crudities with which they are so much loaded in cases of this kind. The day after taking the above drink, let the following powders be given according to direction.

(RECIPE, No. 109.)

TAKE—Chalk, prepared, four ounces ;
Crab's eyes, prepared, two ounces ;
Bole armenic, two ounces ;
Bone, burnt in the fire till white, in powder, two ounces ;
Ginger, fresh powdered, two ounces ;
Gum arabic, in powder, one ounce :
Mix them all well together.

Take one large spoonfull of these powders, mix in a pint of new milk, and give it to the

Calf before it is fed every night and morning, as long as the purging continues. These powders will be found a good absorbent, and frequently to check, if not to cure the disease.

Calves that are attacked with this disease, at the age of from four to six weeks, may have the castor oil increased to two ounces : the powders also may be doubled ; and to these powders also may be added one tea-spoon full of tincture of opium every time they are given. By increasing the quantity, every dose may be made suitable to the age of the Calf. In cases of long standing there is often a continual motion to dung, which may be properly called a *tenesmus*. The pain in this case appears to be limited to the rectum, and may be speedily removed by administering the following clyster.

(RECIPE, No. 110.)

TAKE—Linseed, two ounces ; boil in a pint and a half of water ; strain, and add
Treacle, two ounces ;
Chalk, prepared, one ounce ;
Tincture of opium, half an ounce ;
Oil of olive, one ounce ;

Mix all together while warm, and inject it up the rectum, and apply a small wisp to the anus, that it may be retained for five or ten minutes.

This clyster will be found to expel the acrid and slimy humours adhering to the coats of the rectum; if found necessary it may be repeated once a day.

SECTION XLVII.

Costiveness in young Calves.

The costive habit of some Calves may take place at the age of three or four days; but in general not till the time the young animal is put to dry meat; which may be reckoned at or about the age of eight or ten weeks. In every state of costiveness the animal will be in danger of losing its life, if not removed.

Horned Cattle, whether young or old, when labouring under any internal disease, are very liable to become costive, or *saped*. Cattle labouring under this complaint are liable to inflammatory fevers of different kinds. And if purgative medicines are not given in time, there is often little hopes of recovery. Neat Cattle of all others verge most rapidly to a state of dissolution, when suffering under any inflammatory disease. See page 233, Section XX. on Purging Medicines.

The greatest art of curing diseases is to be well acquainted with their nature, and the constitution of the animal, together with a proper knowledge of the quality and quantity of every medicine necessary to be given in each disease, in order to obtain the desired effect. Without this knowledge, there will be but little probability of success. If the purgative dose be too small, it will be apt to increase the disease; and, if too large, it will be liable to reduce the young animal to a very weak state. A proper quantity therefore to produce the desired effect is the point most necessary to be sought for; and, of this point the author ventures to hope that long ex-

perience has given him a competent knowledge. The following drink is suitable for a Calf six weeks old.

(RECIPE, No. 111.)

TAKE—Glauber salts, three ounces ;

Ginger, in powder, half an ounce ;

Treacle, two ounces ;

Aniseed, fresh powdered, half an ounce :

Put the whole into a pitcher, and pour a pint of boiling water upon the ingredients ;—cover them down, and when new milk warm, give the drink.

The following may be given to one about eight weeks old.

(RECIPE, No. 112.)

TAKE—Glauber salts, four ounces ;

Rhubarb, in powder, two drachms ;

Ginger, aniseed, and caraway-seeds, fresh powdered, of each half an ounce ;

Treacle, three ounces ;

Put the whole into a pitcher, and pour a pint of boiling water upon the ingredients ; cover them down, and give them when new milk warm.

Or, if thought more proper, the following may be given, especially in inflammatory cases.

(RECIPE, No. 113.)

TAKE—Castor oil, four ounces ;

Rhubarb, in powder, two drachms ;

Salt of tartar, one drachm ;

Ginger, and aniseed, fresh powdered, of each half an ounce ;

Treacle, two ounces ;

To be given in a pint of warm gruel.

Any of these drinks may be repeated once a day, until they produce the desired effect. By increasing the glauber salts, or castor oil, the drink may be accommodated to every age. The great utility of purging medicines consists in carrying off those crudities, which so frequently engender in the stomach and intestines of young Calves, and produce many fatal diseases ; as is obvious to those who have the management of young Cattle.—It will be necessary to introduce a cordial drink or two which is always proper to be given after purging ; as it not only nourishes and heals the parts, but stimulates them to fresh action, and produces in them a healthful ten-

dency. It will likewise be found of infinite use in removing flatulency from the stomach and intestines, and in promoting the peristaltic motion, which is the best method of preserving health in these young animals.

(RECIPE, No. 114.)

TAKE—Aniseed, caraway-seed, and cummin-seed, fresh powdered, of each one ounce ;

Ginger, and grains of Paradise, fresh powdered, of each half an ounce ;

Treacle, two ounces ;

A lump of butter of the size of a walnut :

Put the ingredients into a pitcher, and pour a pint of boiling ale upon them. Cover the whole down till new milk warm, and then give it.

This will be found an excellent drink to remove indisposition, strengthen the stomach, and promote an appetite.

SECTION XLVIII.

The Hoose in Calves.

This disease most commonly attacks young Calves during the first year, and generally seizes them while at grass in the summer. In some dry summers it has carried off large numbers to the great loss of the owners. This disorder is frequently, if not in general, occasioned by worms, which lie in or near the gullet; thereby their continual tickling motion, causes the young animal to be almost in a constant state of Hoosing or Coughing; by which the powers of digestion are so much impaired as to render the chewing of the cud impracticable. And, if proper medicines are not applied, they languish and pine away like a consumptive patient. All these evils may be prevented with care and management.—The following drink will be found effectual in destroying this kind of vermin.

(RECIPE, No. 115.)

TAKE—Wormwood, tansy, and savin, of each two ounces;
Indian pink, half an ounce;
Cut or bruise them small, and put them in a pitcher;
Then pour a quart of boiling water upon the ingredients;
cover them down, and let them stand in a warm place
till next morning, strain the liquor through a cloth,
and add to it
Ginger, in powder, half an ounce;
Aniseed, in powder, two ounces;
Linseed oil, two table-spoons full;
Mix, and give it new milk warm.

The Calf must fast two hours before the drink is given, and two hours after, then it may be turned into its pasture again. It will be necessary to repeat the drink every other, or every third day for some time. The above drink is calculated for one of the age of three months, and from that to six. If the beast be older a larger proportion of the ingredients must be added; if younger, less will suffice. Or the following may be given if thought preferable.

(RECIPE, No. 116.)

TAKE—Wormwood, and tansy, of each a small handful;
Indian pink, half an ounce;

Cut, or bruise them small, and infuse them in a quart of boiling water all night, strain, and add to the liquor Gentian, and worm-seed, in powder, of each half an ounce;

Caraway-seed, and aniseed, fresh powdered, of each one ounce;

Linseed oil, two table-spoons full;

Mix, and give new milk warm.

The young animals must fast the same time before and after the present drink as the former. This drink will be suitable for those at the age of six months, and from that to twelve months. It may be repeated every third day, for three or four times; then leave off for a week, and if the Calf still continues unwell, repeat it as before. These drinks will increase the appetite, promote digestion, and destroy vermin from the larynx.

SECTION XLIX.

Observations on the proper method of dividing the different Drinks, mentioned in this Treatise, suitable for Horned Cattle, from the age of one year and upwards.

The reader is requested to bear in mind, that in the preceding pages, the drinks are chiefly calculated for Cattle that have arrived to a state of maturity. It will therefore be necessary for those persons who have the care of Horned Cattle, to have a proper knowledge of the method commonly used in dividing each drink suitable for their different ages. Those of a purgative nature first claim our attention, as they are the most necessary for every one to make himself thoroughly acquainted with.

If too large a dose be given, the animal's life will be in danger: on the other hand, if too small a quantity be administered, the symptoms

will be increased; thus it is obvious that either extreme may lead to a disappointment of cure, if not to the death of the animal. It is indispensibly necessary, that those persons who are in the habit of prescribing medicines for Horned Cattle, should make themselves well acquainted with the nature and power of the animal frame, the symptoms of all diseases, and likewise quality and operative powers of the medicines usually prescribed. Without this knowledge our proficiency in the healing art will be very deficient.

The following method, if strictly attended to, will lead to a proper division of those drinks, whose operative powers are the most considerable.

First.—For a heifer, or a steer, of one year old, and from one to a year and a half; one half of any of the following purging drinks will be sufficient.—(No. 3, page 145), (No. 8, page 155), (No. 16, page 168), (No. 21, page 175), (No. 22, page 176), (No. 24, page 180), (No. 29, page 185), (No. 33, page 191), (No. 37, page 198), (No. 40, page 206), (No. 48, page 214), (No. 60, page 238).

Second.—For such as are from one year and a half to two years and a half, three parts out of four may be given of any of the aforesaid drinks, afterwards a whole drink may be given. By this method every drink may be divided suitable for every age, size, and constitution.—The above rule will also serve to regulate the other drinks.

END OF PART THE SECOND.

On Sheep and Lambs.

PART THE THIRD.

SECTION I.

The Lambing Season.

THE Lambing season depends wholly on the time when the Tup is put to the Ewes; which in general is so calculated, that they should bring forth their young towards the latter end of February, or the beginning of March. This is an inclement season both for the Ewe and the Lamb, especially if they have been badly kept for some time before yearning. The consequence natu-

rally to be expected on this occasion, must be a great loss amongst both the Ewes and their offspring. If the Ewe has not sufficient support for herself, the Lamb in course will be weakly at the time it is brought forth. It is therefore indispensibly necessary, that all Sheep breeders should pay every attention to these animals, that nature and the season of the year may require. For a month or six weeks at least, before the time of yeaning, they should be supplied with plenty of food, in order that nature may provide for her offspring at the appointed time. If strict attention be paid to these observations, the health and strength of these animals will be preserved, by which they will be enabled to go through the difficulty of parturition.

Further, every farmer or grazier, who is in the practice of breeding of Sheep, should be provided with a fold yard suitable for the purpose. It may consist of a small plot of ground, well protected from the north-east and westerly winds, with a suitable shade, and a fire place in it, and other conveniences for the purpose.— Thus, the shepherd will be the better able to attend them at all hours of the night to give his assistance, if required, and to take proper care

of them. By attending to these observations the lives of many will be saved. It frequently happens during the Lambing season, that Ewes are severely handled through the largeness of the Lamb, or its being in a wrong position, so as to bruise or tear the different parts of the uterus.— It will be very necessary to have in readiness one of the following mixtures.

(RECIPE, No. 1.)

TAKE—Venice turpentine, and Barbadoes tar, of each four ounces ;

Spirits of turpentine, half a pint ;

Mix these well together ; then add

Mel-égyptiacum, two ounces ;

Oil of vitriol, and aquafortis, of each half an ounce ;

Mix them together, and add

Tincture of myrrh, half a pint ;

Mix, and shake them all well together in a bottle for use,

OR,

(RECIPE, No. 2.)

TAKE—Spirits of wine, two ounces ;

Oil of vitriol, and spirits of turpentine, of each one ounce ;

Compound tincture of myrrh, two ounces ;

Wine vinegar, one pint ;

Mix all well together in a bottle for use.

OR,

(RECIPE, No. 3.)

TAKE—Restorative balsam, and compound tincture of myrrh,
of each eight ounces ;

Mix, and keep them in a bottle for use,

OR,

(RECIPE, No. 4.)

TAKE—Spirits of turpentine, eight ounces ;

Rectified spirits of wine, three ounces ;

White vitriol, four drachms, in powder ;

Linseed oil, eight ounces ;

Compound tincture of myrrh, one pint ;

Mix them all well together, and keep them in a bottle
for use.

OR,

(RECIPE, No. 5.)

TAKE—Spirits of turpentine, and spirits of sal ammoniac, of
each eight ounces ;

Opodeldoc, four ounces ;

Linseed oil, and pale oil, of each one pint ;
Spirits of wine, four ounces ;
Wine vinegar, one pint ;
Mix, and shake them all well together in a bottle for use.

OR,

(RECIPE, No. 6.)

TAKE—Linseed oil, spirits of turpentine, and wine vinegar, of each one pint ;
Compound tincture of myrrh, eight ounces ;
Spirits of wine, six ounces ;
Oil of vitriol, two ounces ;
Barbadoes tar, two ounces ;
Mix all these ingredients well together, and keep them in a bottle for use.

The author has given the above different formulas, but leaves it to the practitioner to use which he thinks best.

Whenever these mixtures or oils are used, let the bottle be well shaken, and from one to two table spoons full may be conveyed into the matrix, or womb, either by the hand or with a spoon, half the quantity of (No. 3, page 328) will be sufficient. They warm and stimulate the parts

affected, and will effectually prevent or cure the gangrene or mortification in these parts, as in other fresh wounds. The following drink will be found of infinite service, if given to those Ewes which are injured by a difficult parturition.

(RECIPE, No. 7.)

TAKE—Restorative balsam, three drachms ;

Anodyne, one ounce ;

Mix, and give it in two ounces of warm ale.

OR,

(RECIPE, No. 8.)

TAKE—Peruvian bark, and

Ginger, in powder, of each one drachm ;

Mix them in half a pint of warm gruel, and add

Treacle, two ounces ;

Brandy, one table-spoon full ;

Mix, and give it new milk warm.

It is frequently necessary to repeat the drink once or twice a day, either where the animals received much injury, or where they have been reduced by poverty, indifferent, bad, or scanty keep for a long time before the Lambing season commences.

The gruel that is necessary to be given to Ewes at the time of lambing should be made as follows :

TAKE—Linseed, fresh powdered, one pound ;

Oatmeal, two pounds ;

Mix them together, and when gruel is wanted, take a sufficient quantity of the powder and water ;

Boil them together into gruel, in the same manner as if made of oatmeal alone ;

A table-spoon full or two of gin or brandy may be added, and a similar quantity of sugar.

This will give abundance of support to these animals, as well as nourish and heal their insides, through the richness of the seed being combined with the oatmeal. From half a pint to a pint of this gruel may be given at one time, and repeated twice a day if necessary. If the Ewe be deficient in her milk (which very often happens at the time of lambing, for want of better support), let the following drink be given, which will be found to greatly assist those secretions.

(RECIPE, No. 9.)

TAKE—Aniseed, cummin-seed, sweet fennel-seed, caraway-seed, and grains of Paradise, of each one drachm, all fresh powdered;

Mix, and give in half a pint of warm gruel.

Such persons as may find it necessary to give their Sheep the above drink, would find it more convenient to have three or four ounces of each powdered and mixed together; and if they are not used in a few days, to put them in a pot and tie them close down with a bladder. Five drachms of these powders may be mixed and given as above, at any time. By this method the whole virtue of the seeds will be preserved. This drink acts as a cordial, and powerfully promotes the milky secretions; at the same time it warms and stimulates the stomach and the intestines.

SECTION II.

On the Diseases of young Lambs.

Young Lambs are liable to a variety of different diseases, either from insufficient keep, or from a redundancy of milk. If they proceed from the former, support must be given them, either by allowing them to suck other Ewes, or by giving them Cow's milk.——When the Ewe has too much milk, it is apt to coagulate and form into a substance in the stomach, by which a number of the best Lambs is frequently carried off. At other times the acid, produced from the coagulated milk in the stomach, brings on a continual purging: which, if not put a stop to in a short time, will carry off many of the best Lambs. This is common among Lambs at the spring of the year. The following drink will be found useful in dissolving the coagulated matter in the stomach, correcting the acid, and in carrying off the disease by stool.

(RECIPE, No. 10.)

TAKE—Salt of tartar, one tea-spoon full ;
Castor oil, one table-spoon full ;
Ginger, fresh powdered, two drachms ;
Coarse sugar, one table-spoon full ;
Mix, and give in half a pint of warm gruel.

This drink may be repeated once a day, for two or three times, until a proper passage is obtained. The quantity of castor oil may be increased or diminished according to the size and strength of the Lamb.—A strong Lamb six weeks or two months old, will require one table spoon full and a half ; but, if only two or three days old, half a table-spoon full will be sufficient. If the disease be permitted to continue for some time, and no endeavour be made to give relief, the diarrhœa becomes more stationary ; and the stools are attended with a copious dejection of the mucus of the intestines, together with a griping pain, while the young animal daily pines away.

After the bowels have been properly evacuated by administering the purging drink, the following powders will be found to have a good effect in

correcting the acid in the first passages, and in putting a stop to the over-purging.

(RECIPE, No. 11.)

TAKE—Chalk, prepared, four ounces ;

Crab's eyes, and oyster shells, prepared, of each two ounces ;

Aniseed, caraway-seed, and ginger, fresh powdered, of each one ounce ;

Rhubarb, in powder, half an ounce ;

Mix them well together in a mortar.

One small table-spoon full of these powders must be mixed in a little sweetened gruel, and given to each Lamb once a day. If the purging does not abate in the course of two or three days, ten drops of tincture of opium may be added to each dose of powders, or you may give the following drink.

(RECIPE, No. 12.)

TAKE—Tincture of rhubarb, four drachms ;

Anodyne, one ounce ;

Ginger, in powder, one drachm ;

Mix, and give it in a little sweetened gruel once a day.

By adhering to the above method of treatment a cure may soon be expected.

SECTION III.

Red Water.

This disease is of the inflammatory kind, and prevails most at the latter end of the year, or during winter, among Sheep feeding on turnips, or succulent grass. This disease for the most part attacks those Sheep first which are in the best condition: and if no relief can be obtained they generally die in the space of twenty-four hours or less. In such as have been opened, the disorder has, on examination, been found to proceed from an inflammation, either in the stomach, intestines, kidneys, or the neck of the bladder. Sometimes the intestines become loaded with sand or gravel, while feeding on turnips; by which the inflammation is considerably increased. Whenever this disease makes its appearance amongst flocks of Sheep that are feeding on turnips or succulent grasses, no time must be lost in putting a stop to so destructive a dis-

ease. The loss sustained by the grazier in consequence, is often very considerable. The following medicine is calculated to be of use.

(RECIPE, No. 13.)

TAKE—Epsom salts, twelve ounces;
Nitro, in powder, eight ounces;
Boiling water, three quarts; pour the water hot upon
the salts when new milk warm, add
Spirits of turpentine, eight ounces;
Bole-armenic, in powder, one ounce;
Mix, and shake them well together. The dose is, from
three to four table-spoons full.

When this medicine is intended to be given to a number of sheep, they must be taken from the turnips, or whatever they are feeding on, put into a pen or fold yard, for two hours before it is given. Then a small horn should be provided, that will just hold the quantity proper for each Sheep. Let the bottle be well shaken each time it is poured into the horn.

This method of giving drinks to Sheep will be found very advantageous, when many require at a time. They must be kept from food two hours after the medicine is given, either in a fold yard,

or a pen; after which they may be put into their pasture as usual. When this disease is so severe that several die every day, it will be needful to repeat the drink every third day, for three or four times, or more if thought proper. This will be found a powerful medicine in all inflammatory diseases, and in removing all those obstructions that so frequently take place in the kidneys, uterus, or other parts of the body, while feeding on turnips, or in a luxuriant pasture.

SECTION IV.

The Rot.

This disorder has been more fatal to Sheep than any other; and, having at different times carried off great numbers, it has occupied the attention of the learned, who have favoured the public with a variety of opinions: the symptoms

of this fatal disease, cannot be more accurately stated than in the following description of Dr. Harrison.

“ When in warm, sultry, and rainy weather, Sheep that are grazing on low and moist lands feed rapidly, and some of them die suddenly, there is reason to fear they have contracted the Rot. This suspicion will be increased, if a few weeks afterwards, the Sheep begin to shrink, and become flaccid in their loins. By pressure about the hips at this time a crackling is sometimes perceptible. Now or soon afterwards the countenance looks pale, and upon parting the fleece the skin is found to have changed its vermilion tint for a pale red; and the wool is easily separated from the pelt.

“ As the disorder advances, the skin becomes dappled with yellow or black spots. About this time the eyes lose their lustre, and become white and pearly, from the red vessels of the *tunica adnata* and eye-lids being contracted, or entirely obliterated. To this succeeds debility and emaciation, which increase continually till the Sheep die; or else *ascites*, and perhaps general dropsy, supervenes before the fatal termination.

“ These symptoms are rendered more severe by an obstinate purging, which comes on at an uncertain period of the disorder. In the progress of the complaint, Sheep become what the grazier call *choked*, that is, affected with a swelling under the throat.

“ In five or six days after contracting the Rot, the thin edge of the small lobe of the liver becomes of a transparent white, or bluish colour, and this spreads along the upper and lower sides, according to the severity of the complaint.— Sometimes it does not extend more than an inch from the margin. In severe cases, the whole peritoneum investing the liver is diseased; and then it commonly assumes an opaque colour, interspersed with dark red lines or patches.

“ The upper part of the liver is sometimes speckled like the body of a toad, to which it is said to bear a striking resemblance; round the *ductus communis choledochus* and hepatic vessels, jelly-like matter is deposited, which varies according to the severity of the attack, from a table-spoon full, or less, to five or six times that quantity. Upon boiling, the liver loses its firmness, and separates into small pieces in the water,

or remains soft and flaccid. Several graziers and butchers, with whom I have conversed at different times, having observed that Sheep are much disposed to feed during the first three or four weeks after being tainted, omit no opportunity of producing it, to increase their profits.

“ When the first stage is over, flukes begin to appear in the *pori biliarii*, the *ductus communis choledochus*, and in the gall-bladder.—At first, these creatures are small; but, as the disease advances, they increase; and, before death, are often very numerous.

“ In the last part of the complaint, they are sometimes to be found in the stomach, as well as in the intestines and liver. This like the visceral disorders of the human body, may terminate in *resolution*,—*effusion*,—*suppuration*,—or *schirrus*.

“ First.—The complaint is said to terminate in *resolution*, when the inflammatory action goes off without destroying the state and texture of the parts. However, I am strongly inclined to believe, that every considerable inflammation in the human body, and in other animals, although

it ends in resolution, leaves behind it some remains, which may be discovered by an experienced anatomist.

“ When the vessels are thrown into inflammatory action for a few days only, *effusion* commonly takes place, and the coats become thicker, and assume a buffy colour. These changes in the sanguinary system often continue through life, and lay the foundation of many chronic and incurable diseases. Sheep that recover from the Rot, exhibit very different appearances after death, according to the severity of the attack; but the taint is seldom or never entirely removed.

“ Secondly.—When Sheep die suddenly in the first stage of the disorder, an effusion of serum, or of wheyish coloured fluid, may be commonly discovered in the cavity of the abdomen, and then the *peritoneum* surrounding the liver is generally covered with a membrane or a coat of coagulable lymph. This form of the Rot has been frequently confounded with the Resp, or Red Water, though it differs from the latter disorder in the colour of the effused liquid, in being much less disposed to putrefaction, and in several other particulars.

“Thirdly.—*Abscesses* in the liver exhibit another termination of the malady. They are seldom considerable enough to kill immediately; but, in consequence of the absorption of the purulent matter from them, the Sheep frequently waste away, and die hectic or dropsical. When the collections are small, Sheep will recover sufficiently to bear Lambs for three or four seasons, and afterwards become tolerable mutton.

“Fourthly.—The most common termination is in *schirri*, or what the shepherds call knots in the liver. Sometimes the whole substance of this important viscus is so full of small roundish lumps, or schirrous bodies, that it is difficult to find any sound part in it. The first attack is unfortunately so very insidious that the disorder is scarcely observable, before the animal begins to waste and lose flesh. In this advanced state it is said to labour under the Rot, or *pourriture*, from overlooking the commencement of the disorder.”

The following recipe will be found exceeding useful.

(RECIPE, No. 14.)

TAKE—Nitre, in powder, six ounces;
Ginger, fresh powdered, four ounces;
Colcothar of vitriol, in fine powder, two ounces;
Common salt, three pounds and a half;
Boiling water, three gallons;
Pour the hot water upon the ingredients, stir them, and
when new milk warm, add to every quart of the
mixture three ounces of spirits of turpentine, and
bottle it for use.

If this medicine be put in bottles holding from one to two quarts of the mixture, it will be much the better, as the bottles will be more convenient for shaking at the time of giving, which will be found necessary, in order to keep the turpentine in a more divided state.

The following directions must be strictly regarded.

Keep the infected Sheep from food all night; on the following morning give to each Sheep *two ounces of the above mixture*; (remember to shake the bottle well at the moment of pouring it out). To those that are weak and much re-

duced by the disease, one ounce, or one ounce and a half may be sufficient for a dose. Keep them from food three hours after giving the drink, and then turn them into a dry pasture.

It will be necessary to repeat the medicine every fourth day for three times, observing the above rules. But where only half the quantity has been administered, it will be proper to repeat every second or third day for six times.

Every shepherd should be provided with a small horn, just to hold the proper quantity ; this will save considerable time and trouble, when it is necessary to give the above drink to a number at the same time.

SECTION V.

The Scab.

The Scab is a disease that is very common in this part of the kingdom (Leicestershire) though perhaps not so prevalent as in some parts of Lincolnshire. This disorder is contagious, for if one Sheep be infected with it, it will quickly communicate to the rest of the flock; and can seldom be entirely eradicated without the whole flock undergoing a general dressing.

Too much caution cannot be used by the grazier in first introducing Sheep, which are purchased from other districts, among his flocks, lest any of them should be infected with this disease. The Scab requires but little description, being so well known to most persons who are accustomed to the care and management of Sheep. It is first discovered by the animals rubbing themselves against every post, gate, bank, or any

other convenient place suitable for the purpose, and they are frequently seen to pull off the wool with their mouth.

This disease appears to be of the cutaneous kind, and only effects the skin with a scabby eruption; but if permitted to remain without attempting to cure, it will enter the system; and unless great care be taken, the Sheep will sink under its pressure. I shall give two recipes of cure, but leave it to the practitioner to use which he thinks best.

(RECIPE, No. 15.)

TAKE—Tobacco, six pounds;

Black sulphur, three pounds;

Yellow sulphur, three pounds;

Black pepper, powdered, one pound and a half;

Common salt, six pounds;

Rain water, twelve gallons;

Boil all the ingredients in the water one hour, and then strain the liquor off.

One quart of this water is sufficient to dress one Sheep of a moderate size for the Scab, and if slightly infected less may suffice. It must be well rubbed on the parts affected.

(RECIPE, No. 16.)

TAKE—Quicksilver, one pound four ounces;

Venice turpentine, half a pound;

Spirits of turpentine, two ounces;

Work them well together in a marble, stone, or iron mortar, until the quicksilver is thoroughly incorporated, which may be complete in the course of six or seven hours; then take four pounds and a half of hog's lard, melt it over a slow fire, and when new milk warm, add it to the quicksilver, and keep it constantly stirring until it grows stiff.

The labour in making this ointment, may appear to some persons very considerable; but the quality wholly depends on the perfect union of the quicksilver and the other ingredients. If requisite, the person may make four times the quantity in nearly the same time, by working it all together in a large marble or iron mortar, or in an iron pan (of a sufficient capacity to hold the whole) with a wooden pestle five or six inches broad, and made suitable to the bottom of the mortar, or pan.

Shepherds in many parts of this kingdom have but little knowledge of the proper method

of using this ointment, for want of which the life of the animal is often in danger. It will therefore be necessary for every shepherd, and others that have the care of Sheep, to know the proper quantity that may be used with safety.

One pound of this ointment is sufficient to dress eight Sheep of a moderate size for the Scab, and if slightly infected, it will suffice from that number to twelve. Many farmers and graziers are in the practice of dressing all their Sheep and Lambs every year, whether infected with the Scab or not. They alledge that it destroys filth, promotes health, and causes them to thrive much faster. One pound is sufficient to dress twelve Sheep when used as a preventative from the Scab, or to keep them free from filth.

The ointment should be neither too stiff nor too thin; if the former, it cannot be properly rubbed on the part; if the latter, it is apt to run off and be of no use. A moderate consistency, therefore, so as to spread freely, is the best, which may be regulated in the following manner. If the ointment be made during the summer, when the weather is warm, leave out one pound of laird and add one pound of resin: dissolve it

in the lard, and add it to the mercury : this will make it of a proper consistence.

The method of using this ointment is as follows : divide the wool on the back from the head to the tail, so as to expose the skin ; then take a small quantity of the ointment intended to be rubbed on the Sheep, and rub it well in upon the skin, from head to tail. Next divide the wool on each side, and rub the remaining part of the ointment well in. This is the general method made use of either in dressing of Sheep for the Scab or filth. But, different shepherds adopt various ways, some thinking necessary to divide the wool down each shoulder, and likewise on the thighs, or on any part that may be infected with the Scab.

The most proper time for dressing Sheep with ointment, is in the month of October, choosing dry weather for the purpose. But, this is not always the case : the farmer often neglects to dress at the latter end of the year, and in the spring he frequently finds his sheep infected with the Scab. Now, they should not be dressed for this disorder too early in the spring, but should be allowed to gather a little strength, and if the weather be dry and fine, it should not be suffered to pass.

SECTION VI.

Sheep Lice, and Ticks.

Sheep of every description are liable to these kinds of filth; but more particularly such as are in an unthriving state. They in every respect appear to be constant attendants on Sheep that are struck with poverty. A description of them is almost unnecessary, as shepherds and others accustomed to Sheep must have a knowledge of this kind of vermin. The louse is of a brownish colour and a flat make, having three legs on each side of its head. Ticks are nearly of the same make and colour, excepting that they are considerably larger. They are of great detriment to the Sheep, prevent them from thriving, and cause them to scratch off their wool by often rubbing against fences, &c. and sometimes they will tear it off with their mouths, to the great injury of the pelt and fleece.—In order to destroy these vermin, the following solution may be used, or the ointment (No. 16, page 343): one pound

will be sufficient to dress twelve Lambs, and if properly rubbed in will destroy all the filth found upon it.

(RECIPE, No. 17.)

TAKE—White arsenic, in fine powder, one pound ;

Pearl ashes, four ounces ;

Soft soap, two pounds ;

Boil the arsenic and ashes in two gallons of soft water ;
till the arsenic is dissolved ; then add the soap, and
when it is dissolved, add ten gallons more water.

If the arsenic be genuine one pint of this water or wash will be found sufficient for one Sheep. Divide the wool on the back from the head to the tail, so as to expose the skin ; then take a part of the water intended to be rubbed on the Sheep, and rub it well upon the skin from head to tail. Next divide the wool on each side and rub the remaining part of the water well in. —Those who practice the method of dipping their Lambs may use the following solution.

(RECIPE, No. 18.)

TAKE—White arsenic, in fine powder, two pounds ;

Pearl ashes, half a pound ;

Soft soap, seven pounds ;

Boil the arsenic and ashes in three or four gallons of soft water, until the arsenic is dissolved; then add the soap, and when it is dissolved pour the water into a large tub, and add water to reduce it to a proper strength to kill a tick in one minute—if any weaker it will not answer the end designed.

The Lambs or Sheep should be dipped, or immersed in the solution, taking care to keep the head above the water: the Sheep must be put into another tub, or on a broad plank, fixed in a sloping position on the side of the first, so as the liquor can be pressed out of the wool with the hand, and returned into the tub again. By this method a considerable number may be done in a short time.

SECTION VII.

Inflammation in the Udder of Ewes.

This is a common complaint among Ewes at the time of yeaning or lambing. Those which have been kept the best for some time before they bring forth, are the most liable to this complaint, as it is apt to cause a flush of milk at that time ; and from the glutinous state of the first milk, and also from being long retained in the udder, it blocks up every passage and soon brings on an inflammation in that part, unless proper care be taken to prevent it.

All Ewes at the time of lambing ought to have their udders well examined by the shepherd : if their milk pass freely from them, on pressure of the finger and thumb, there is but little danger of an inflammation in those parts. On the contrary, if the udder be tumefied, and there be found no passage for the milk in its regular

channel through the teats, these parts being glued up with the glutinous quality of the first milk, it is frequently found necessary to introduce a small knitting-needle up the regular passage into the udder (but this requires proper care and attention least a new passage be forced); after which the milk may be discharged with ease. Then let the swelled part be well rubbed with the following mixture.

(RECIPE, No. 19.)

TAKE—Oil of olive, four ounces;

Spirits of turpentine, two ounces;

Soft soap, two ounces;

Camphorated spirits of wine, and

Spirits of hartshorn, of each two ounces:

Mix them in a marble mortar with the soap, by a little at a time, and then put them in a bottle for use.

After the milk has been drawn from the udder, or at least all that can be taken away at the present time, rub in the above oils on the part affected, and let this be done twice a day. They will be found of excellent use in all purposes of this kind, where obstructions are formed in the lacteal vessels. But if the tumour should increase and

proceed to a state of suppuration, it will then be needful to open the part with a lancet, or a sharp pointed knife, and then dress it with the digestive ointment (No. 70, page 257) as there directed for wounds. Or the gangrene oils (No. 69, page 255).

SECTION VIII.

The Foot-Halt, and Foot-Rot.

These diseases in the feet of Sheep appear to proceed from one and the same cause: yet, if any person wishes to make a distinction, it may easily be done by considering the first stage of the disease as the Foot-halt, and the last as the Foot-rot. A minute description of this disease would be of little use, as all persons accustomed to Sheep cannot be otherwise than acquainted with. It is first discovered by the animal walking lame, and if no attempt be made to cure, it

will in time fall a victim to the disease. The cure will be easily effected, if the following rules be observed.

Let the Sheep infected with this disease be fetched up from their pasture and put in a dry fold-yard: after they have stood one hour, take a brush (such as is commonly used for cleaning teeth) and brush all the dirt from between the claws; after which take a wooden skewer and dip it in butter of antimony, oil of vitriol, aquafortis, or spirit of salts, (any one of these will be sufficient) and anoint the diseased part all over, after which let them stand dry for one hour.

If they are properly managed, once doing is generally sufficient to perform a cure. If either of the above articles is preferable to another it is the butter of antimony, which seems to have a more powerful effect in some cases than the others. A second dressing is seldom required except in those cases where there is some appearance of proud flesh, when it must be repeated every third or fourth day, for a few times. If the disease is not checked by these means, but in every respect appears worse, and much super-

fluous flesh grows out betwixt the claws; the best and most expeditious way in this case will be to cut it off with a sharp knife, taking care to cut off only the superfluous parts. The operator should previously be provided with pledgets of tow, old linen, and a long piece of tape: he may then proceed to dress the wound, or place whence the proud flesh was taken, with the following powders.

(RECIPE, No. 20.)

TAKE—Blue vitriol, white vitriol, and burnt allum, all in fine powder, of each one ounce;

Bole-armenic, in powder, half an ounce:

Mix them together for use.

The wound must be covered all over with the powders quite thick; secure them properly on with tow, old linen, and the tape. This will stop the bleeding, and prevent the proud flesh from rising. The dressing should be repeated every other day for three or four times, which is generally sufficient to perform a cure. If not, it will be sufficient if dressed twice a week. Or, the following may be used, if thought more proper.

(RECIPE, No. 21.)

TAKE—Blue vitriol, white vitriol, sugar of lead, all in powder,
of each one ounce ;

Honey sufficient to make it into a paste.

In all slight cases where there is but little appearance of proud flesh, the part may be touched with a skewer dipped in any of the above mentioned caustic spirits, and afterwards dressed with paste. Spread it thick upon tow, and apply it to the wound ; then cover it with linen, and fasten on with a bandage. This may be repeated every other day or twice a week till the foot be well. Or, if the powders, or the paste, be well rubbed on the part affected every other day, for three or four times, it will in general be found sufficient to effect a cure. Care must be taken that they stand dry for one hour after each dressing. By a strict attention to the preceding method of applying the different medicines on this head, a speedy cure may be performed in the worst of cases.

SECTION IX.

The Scour, or the Diarrhæa.

This disease is very frequent amongst Sheep, and generally proceeds from bad and scanty keep during the winter season. It makes its appearance early in the spring, as soon as the young grasses begin to put forth their succulent qualities. The Sheep are not able to stand against so luxurious a change, and by this many fall a sacrifice to the complaint. Whenever this proves to be the case, they should frequently be removed to an inferior pasture and allowed a little hay once a day, for a short time. This method of treatment is usually sufficient to check or prevent the Scour in Sheep. In general this disease seldom lasts longer than a few days; but, if the symptoms should still continue to increase, and the animal be in danger of its life, either of the following powders or mixture may be given, which will prove effectual in most cases though ever so bad.

(RECIPE, No. 22.)

TAKE—Peruvian bark, ginger, and prepared chalk, of each one
drachm, in powder ;

Mix for one dose.

These powders may be given in a little warm gruel once or twice, to such Sheep as are in the greatest danger, with a small table-spoon full of gin or brandy added to it. In those cases where the disease is uncommonly severe, a tea-spoon full of tincture of opium may be added to each dose.

(RECIPE, No. 23.)

TAKE—Tincture of rhubarb, four drachms ;

Restorative balsam, two drachms ;

Anodyne, one ounce ;

Ginger, in powder, one drachm ;

Mix, and give it once a day in a little warm gruel.

This will be found an excellent drink in removing the complaint.

SECTION X.

To prevent the Fly.

Sheep during the summer, and especially in hot sultry weather, are constantly plagued with flies, particularly those kept in lanes or woody districts. They give the animal so much trouble at times, as to cause them to run into hedges and the bottoms of dikes or ditches, to the very great detriment of their pelt and fleeces. They also prevent them feeding, at a time when they ought to make the greatest progress.

Numerous remedies have been offered to the public in order to prevent the fly from striking the Sheep. The following powders and ointment has been for a series of years prepared and recommended by the author of these sheets, and they answered the purpose to the satisfaction of those that have used them according to direction.

(RECIPE, No. 24.)

TAKE—White lead, flowers of sulphur, and white arsenic, of each one pound, in fine powder ;

Mix them all well together in a mortar ; then add

Assafœtida, half an ounce, dissolved in a little vinegar, and one ounce of animal oil ; and rub it well in the powder.

The above quantity of powders will be sufficient to dress sixty sheep ; or, if it be weighed and folded up in small paper packets of three quarters of an ounce each, a single packet will be sufficient to dress one sheep. By this method the shepherd will not be liable to make a mistake in dusting more on one than on another.

Directions for using these powders.

First.—Let one man take hold of the Sheep by the head, and another with a packet of the above powders put in a pepper-box held in his right hand, and a stick in his left. Then draw the stick gently from the head to the tail, and with the other hand dust on the powders close after the stick. The utility of the stick will be

seen, from its pressing down the wool while the powders are dusted on, and as the wool rises, it shakes and spreads the powders.

Next, take a small watering pan, and sprinkle a small quantity of water from head to tail, and draw the stick backwards and forwards two or three times, by which the powders will be made to adhere to the wool.

Or, the following ointment may be used in its stead if thought proper.

(RECIPE, No. 25.)

TAKE—Oil of amber, six ounces ;

Animal oil, or oil of hartshorn, five ounces ;

Gum assafœtida, two ounces, dissolved in four ounces of vinegar ;

Hog's lard, three pounds ;

Mix the whole of the ingredients well together in a mortar.

The above quantity of ointment will be sufficient to dress sixty Lambs. The wool must be divided, and the ointment applied in the same manner as that for the Scab.

SECTION XI.

Sore Heads.

This is a common complaint during the summer season, and especially such as run in lanes, or woody districts. They are pestered with flies about their heads, which cause them frequently to strike the hind feet against it, until a wound is made; and, if no remedy be applied, it will soon become dangerous. Those that look after Sheep at this season of the year, should always have with him a bottle of animal oil, and as soon as he discovers a Sheep with a sore head, he should drop or pour as much of the oil on the wound as will spread all over it, and it will both heal the wound and prevent the flies from teasing the Sheep.

Or, if thought more proper he may use the following ointment.

(RECIPE, No. 26.)

TAKE—Black pitch, two pounds ;

Tar, one pound ;

Black brimstone, one pound, in fine powder ;

Black resin, one pound :

Put them all together into an iron pot or pan, just give them a boil over a slow fire, and as soon as the sulphur begins to unite with the rest of the ingredients, take the whole from the fire or it will swell and run over into the flames.

The best method of using this ointment or plaister is, first, to procure a sufficient number of leather caps for as many sheep as you intend to cap : any kind of soft leather will answer the purpose, and if short of leather, strong brown paper. These must all be cut in proper shape for laying on the head. Then while the ointment is melted, take a small paint brush and spread it thick upon the leather, and when near setting apply the cap to the head. The evening is the best time for capping Sheep, as there is less danger of knocking them off, and before morning the caps in general set on fast.

SECTION XII.

Maggots.

There are few if any flocks of Sheep which are not subject to this kind of vermin during the summer. They either are or ought to be well understood by all shepherds, or they are not fit to have the care of Sheep. A few rules however shall be laid down, by which those Sheep that are struck with the fly may be detected.

As soon as the maggots begin to make their appearance on any part of the body, the wool on that part becomes moist or wet; they hold down their heads, shake their tails, and run about from place to place, and if permitted to continue in that state many days, they must fall a victim to this kind of vermin. The following mixture will be found adequate for the destruction of maggots in the worst of cases: and in point of cheapness it has a strong claim to the farmer's attention.

(RECIPE, No. 27.)

TAKE—Mercurial sublimate, in powder, one ounce ;

Spirits of salt, two ounces ;

Boiling water, three quarts ;

Put them all together in a stone bottle, and when cold,
add spirits of turpentine, one quart :

Mix, and shake them well together every time they are
used.

The best method of using this mixture is as follows: shake the bottle well, and instantly fill a quart bottle with it before the turpentine has time to separate ; cork the bottle up, then bore a hole through the middle of the cork, and pass a goose-quill cut open at both ends through the middle of it, by this means a proper quantity may be forced out on the part affected without much waste : and if a few drops of animal oil be dropped or poured on the part just dressed, it will prevent the fly from striking it a second time.

SECTION XIII.

Debility and Indigestion.

Sheep are frequently attacked with these complaints during the summer season, which in general are brought on by fatigue through over-driving, and sometimes by over-loading the stomach with herbage. In either case, nature requires something that is warm and stimulating to rouse the peristaltic motion, and to give fresh vigour to the whole system. The following cordial drink will be found useful in all cases of this kind, where action is wanted in the stomach and intestines.

(RECIPE, No. 28.)

TAKE—Aniseed, and caraway-seed, fresh powdered, of each one drachm;

Gentian, Peruvian bark, and ginger, of each half a drachm;

Treacle, one ounce;

Mix, and give it in a little warm ale.

This drink may be repeated once a day if required.

SECTION XIV.

Inflammation.

Sheep, as well as other animals, are liable to be attacked with internal Inflammations during the hot weather in summer, particularly those which are driven a considerable distance (when fat) to the market. This disease attacks different parts of the body, as the stomach, intestines, bladder, kidneys, and other parts. Sheep when first attacked with Inflammation in any of these parts should be bled, either above or below the eye as may appear most convenient at the time; afterwards give the following drink.

(RECIPE, No. 29.)

TAKE—Epsom salts, one ounce and a half, or two ounces, according to the size of the sheep;

Ginger, in powder, one large tea-spoon full;

Treacle, one ounce;

Put them in a pitcher, and pour four ounces of boiling water upon them, stir the whole together, and give when new milk warm.

Or, the following may be given if thought more proper.

(RECIPE, No. 30.)

TAKE—Oil of castor, from two to three ounces, according to
to the size of the sheep ;

Ginger, and salt of tartar, of each a large tea-spoon
full ;

Coarse sugar, one table-spoon full :

Mix, and give it in a tea-cup full of warm gruel.

Either of these drinks will be found sufficient to evacuate the stomach and intestines; if not they may be repeated once a day, until they have the desired effect.

SECTION XV.

Wounds.

Wounds are not so common among Sheep as other Cattle, excepting those occasioned by vicious dogs, which frequently take place amongst the Sheep kept near large towns where dogs often do considerable damage. The following oils should always be kept in readiness against accidents of this kind, by which means the lives of many will be saved.

(RECIPE, No. 31.)

TAKE—Linseed oil, one pint;

Spirits of turpentine, four ounces;

Oil of origanum, one ounce;

Compound tincture of myrrh, four ounces;

Spirits of wine, two ounces;

Oil of vitriol, two ounces;

Put the linseed oil into a pot, and add the oil of vitriol by a little at a time, keeping it constantly stirring till united; then add the other ingredients:

Mix them well together, and put them in a bottle for use.

These oils will effectually prevent a gangrene, or put a stop to a mortification if applied in time. They also are proper for all kinds of wounds and bruises in horses and beasts, as well as for ewes that may be torn or rent during the lambing season. Let the parts be well rubbed with them once a day.

SECTION XVI.

The disease of the Eye, commonly called Blindness.

This disease in many instances appears to be epidemic; whole flocks being sometimes affected with it at once; at other times it appears to be brought on by fatigue and subsequent exposure in a damp, or bleak situation. It prevails most in the north of England; in the neighbourhood of Melton Mowbray, (Leicestershire) it has at different times made its appearance at the latter end of the year, and frequently affected those in the best condition,

Bleeding has by many been greatly recommended for diseases of the eye; and, where it can be done with safety there is no doubt of its great utility. It may be effected* by opening the angular vein of the eye, and holding the animal's head in an inverted position, so that some drops of blood may fall into the eye. This moderates the increased action of that part which is the immediate cause of inflammation.—There is no doubt but bleeding in most diseases of the eye, that are attended with inflammation, will be found to give instant relief, especially when performed so near the seat of the disease.—The following will be found in all cases of this kind to be sufficient to remove the inflammation and restore the sight.

(RECIPE, No. 32.)

TAKE—White vitriol, and salt prunel, of each one ounce, in powder;

Common salt, one table-spoon full;

Put the ingredients into a bottle, and add to them a quart of soft water made warm; shake the bottle well, and in six hours it will be fit for use.

* “The Complete Grazier,” 8vo. third Edition, page 191.

A small quantity of this may be poured into the eye, or a little of it may be put into the eye with a feather. This is the only remedy that has been used and recommended by the author of these sheets for the last twenty years, for the blindness in Sheep, and he has never yet known it fail of curing.

APPENDIX.

PEARSON'S AGUE PILLS.

(RECIPE, No. 1.)

Take—White Arsenic, finely levigated, three grains;

Castile Soap, three scruples;

Make them up into a paste, by beating them well together in a stone or marble mortar: divide into twelve equal parts, and make each part into a pill. These are for an adult to be taken as under directed; but for different ages they must be divided as follows, or they will not be safe to administer. For those from 16 to 18 years of age, make of the above mass 16 pills; from 14 to

16, make 19; from 12 to 14, make 22; from 10 to 12, make 24; from 7 to 10, make 28; from 5 to 7, make 32; from 3 to 5, make 35; from 1 to 2, make 38 pills.

Thus divided, they may be administered with safety to persons of two years old and upwards.

These pills are a sovereign remedy for the Ague, and have never been known to fail when properly taken, and duly repeated.

DIRECTIONS FOR USE.

Begin as soon as the fever is abated and take one pill every four hours, till six is taken; then take three more, one every four hours, at eight days end; and the other three eight days afterwards. During the operation, the patient must observe the following particulars.—Abstain from milk, and all

strong liquors, and drink nothing cold; but drink plentifully of camomile tea, also to prevent a relapse the patient must be as careful as possible of cold, till out of all danger; where the strength is exhausted, and the constitution much impaired, the Restorative Balsam will be of infinite service.

PEARSON'S ANODYNE.

(RECIPE, No. 2.)

Take—Turkey Opium, one ounce;

Saffron, one ounce;

Juniper Berries, eight ounces;

Refined Juice, half an ounce;

Cut the Opium and Saffron into small bits, bruise the Berries in a mortar; then add to the ingredients six quarts of water, boil them sixteen minutes, then strain through flannel, and add

Treacle, six pounds;
Rectified Spirits of Wine, eight ounces;
Mix them well together.

This is an excellent medicine, and will be found useful in fluxes and loosenesses, and to correct or stop the violent working of any vomit or purge. Also in the hic-cough, pleurisy, catarrhs, &c. This Anodyne is good for women when they are with child, to prevent miscarriage, by keeping off those wearisome pains which tire them before the time of true labour; and immediately after being delivered, two spoons-full of this Anodyne may be taken to keep off those intolerable after-pains some women are incident to have, in this case; if the pains follow greatly, two spoons-full should be taken every two hours till they abate. This Anodyne is of excellent use for young children that are weakly and restless, and those that are troubled with gripes, vomiting, or loosenesses, it frequently gives present ease. It

is of great use to those that cut their teeth hardly, also for those inclined to rickets, &c.

The manner of taking for children : a large tea-spoon full at night, to one a year old ; half a tea-spoon full to one half a year old ; and so in proportion to young children. Be sure to begin with the least dose first, which afterwards may be increased as occasion require. Men and women may take two spoons-full at bed time, or every two hours if needful.

PEARSON'S

Asthmatic and Chin-cough Drops.

(RECIPE, No. 3.)

Take—Honey, and Liquorice-root, of each four ounces ;

Flowers of Benjamin, and Opium, of each one drachm ;

Camphor, two scruples ;

Salt of Tartar, one ounce ;

Oil of Aniseed, half a drachm :

Cut or slice the Liquorice, and put all the ingredients into a two quart bottle ; add to them one pint and a half of rectified spirits of wine, and half a pint of distilled or boiled water : digest for three weeks, shaking the vessel well twice a day, then strain and filter for use.

This is an excellent medicine for the purpose, it allays the tickling which provokes frequent coughing ; opens the breast and gives more liberty of breathing ; takes off the uneasy sensation of acrimonious humours ; cleanses the small glands, and makes way for their discharge. This medicine properly taken, enlarges the capacities of the vessels in which consists the cure of an Asthma ; the dose is from 20 to 100 drops for a grown person, in hysop tea, or cowslip wine and water, at night

going to bed, or any time when the cough is troublesome; and from 5 to 20 drops to children, for whom, in what is called the chin-cough, it is peculiarly excellent. Also it will be found very useful in all kinds of coughs, if taken as above, at night going to bed.

PEARSON'S
RESTORATIVE BALSAM.

(RECIPE, No. 4.)

Take—Gum Storax, eight ounces;
Gum Benjamin, ten ounces;
Balsam of Peru, six ounces;
Balsam of Tolu, four ounces;
Gum Thus, four ounces;
Best Gum Myrrh, four ounces;
Balsam of Gilead or Mecha, two ounces;

Sucotrine Aloes, one ounce ;
Best Dragon's Blood, two ounces ;
Flowers of St. John's Wort, four ounces ;
Reduce the Gums, Dragon's Blood, and
Flowers to powder, and put all the ingredients into a glazed earthen bottle ;
then add

Rectified Spirits of Wine, one gallon ;
Shake them well together, and set it in a
sand heat for fourteen days or more ;
shake it well twice a day, then decant
or filter the clear off ; and add

Rectified Spirits of Wine, three pints, to
the grounds, and place it in a sand
heat as above, for seven days ; then
strain and filter all off. Put all together for use.

The virtues of this medicine has been proved by many thousands with safety and great success. It is good against the gravel, stone, colic, and griping in the bowels ; and for coughs, consumptions, &c. It is

good for women after hard labour in child-birth; and tender, delicate, low spirited persons will find it very proper and advantageous; as also weakly children, and such as are inclined to rickets, windy ruptures, &c. It stops spitting and vomiting of blood, and heals green wounds effectually. It is good for bruises, when applied to the part affected; in burns or scalds, if immediately applied, it draws out the fire before a blister can rise, and speedily cures in the most deplorable cases. It is good against the piles, external or internal, either bleeding or blind. If the tooth-ach is caused by rotten teeth, it gives ease, and often cures, by putting a little into the tooth; likewise a drop or two put into the ear eases the pain thereof. In using to wounds, burns, or sores, pour a little on lint or cotton wool, and apply it to the wound, or apply it with a feather, and repeat the dressing once or twice a day till well. In deep burns or scalds, it will be necessary to apply a turnip poultice after dressing with the balsam, by means of a feather.—

Forty years ago I cured a very bad scalded leg in eight days; all the skin was off below the knee. I used no other application than the balsam and poultice as above.

Little children may take 5 drops; from five to ten years old 10 drops; from ten to fifteen years old 20 drops; adult persons may take from 40 to 50 drops, on sugar, coarse or fine, from four to eight times in twenty-four hours. In a violent cholic (unless inflammatory), severe fit of the stone or gravel, or any sharp pain in the bowels, patients should increase the dose, and repeat it three or four times in forty minutes if need requires it; there is no danger by increasing the dose, and persons of the weakest constitution may take it with safety and advantage.

The following extraordinary case is a proof of the efficacy of Pearson's Restorative Balsam.

“ Mr. Thomas Faulkner, of Woolsthorp, in the parish of Coltsworth, Lincolnshire, was afflicted with

a very bad surfeit, attended with spitting and vomiting of blood; his complexion became pale, his body emaciated; and all the advice he could obtain proved ineffectual, until taking PEARSON'S RESTORATIVE BALSAM, by which, through the blessing of God, he was perfectly restored to health. Any person desirous of further information, may be satisfied by applying to the above Mr. Thomas Faulkner, or to Mr. Durance, Smith, Melton Mowbray."

The author of this work had no knowledge of Mr. Faulkner, till he received the above account in a letter signed by himself from Mr. Durance.

ANOTHER BALSAM.

(RECIPE, No. 5.)

Take—Gum Guaiacum, twelve ounces;

Balsam of Peru, one ounce;

Rectified Spirits of Wine, two pounds
and a half;

Powder the Gum, and put it in a bottle with the Spirits of Wine, and infuse it with a gentle heat, often shaking it, till the Gum is dissolved; then add the Balsam of Peru, and digest for three days longer, shaking it well twice a day.

This is an excellent medicine to warm and defend the nerves from those derfluxions which prejudice their motions; to preserve from or cure the gout in the joints, there are few if any better medicines. It will answer most if not all the ends which are aimed at by the wood-diet drinks: it dries up or dissipates by insensible perspiration all superfluous moistures. It is good in all venereal and scrofulous complaints, &c.—The dose is from 15 to 30 drops, to be taken in any liquor two or three times a day.

PEARSON'S CORDIAL.

(RECIPE, No. 6.)

Take—Sassafras Chips, six ounces ;

Water, four quarts ;

Boil the Sassafras and water till one quart is wasted, then strain, and add to the liquor twelve pounds of Treacle ; stir it well together, when cold, add eighteen ounces of the Tincture of Opium ;

Mix them well together.

This is an excellent medicine, and will answer in the same complaints as the Anodyne (Recipe, No. 2), and may be administered in the same way.

PEARSON'S
GRAND STOMACHIC ELIXIR.

(RECIPE, No. 7.)

Take—Gentian Root, four ounces;
Camomile Flowers, two ounces;
Galangal, one ounce;
Zedoary, half an ounce;
Virginia Snake Root, one ounce;
Best Cardamom Seeds, six drachms;
Saffron, half an ounce;
Cochineal, half an ounce;
Orange Peel, two ounces;
Proof Spirits of Wine, one gallon;
Slice the Gentian, bruise the other ingredients, and put them in a glazed earthen bottle; then add the Spirits of Wine, and digest in a warm place for three weeks; shake them well together once a day, then filter for use.

It procures a good appetite, and helps digestion, by fortifying and strengthening the stomach, and removes the loathing, sickness and nauseousness thereof. It is excellent in hypochondriac or hysteric vapours in men and women, and is very useful for sick fits, sinking of the spirits, faintness, trembling, or melancholy; quickly raising and briskening the spirits, &c. It procures a sweet breath, by taking off all scorbutic and unsavory belchings. It tends to preserve from infection by corrupt air, or contagious distempers exceedingly, by keeping the blood in an even temper, and not suffering it to stagnate, corrupt, or putrify; it causes a free circulation of the blood, and mightily purifies the same. If freely taken, it will be a means of preventing the return of intermitting and other fevers. It will be exceedingly useful for those that are frequently afflicted with an uneasy sensation of pain at the orifice of the stomach, called the heartburn; and few if any medicine will equal this Elixir for making Purl or Purl Royal, being put in Ale and Sack.

DIRECTIONS FOR USE.

Take 60 drops in the morning fasting at eleven o'clock, and 4 in the afternoon, or as often as you please, in a glass of water or wine and water;—to prevent the return of an intermitting fever, take in red port at least four times a day.

PEARSON'S PURGING PILLS.

(RECIPE, No. 8.)

Take—Socotrine Aloes, four ounces;
Colocynth, in fine powder, two ounces;
Calomel, two ounces;
Oil of Cloves, two drachms;
Powder the Aloes; mix all the ingredients together, and make them into a mass, with Syrup of Buckthorn.
N. B. Beat them well together, and make nine hundred and twenty pills.

Let the reader observe, that from the blood all the juices in the body are made, hence it is when the blood is in an impure state those fluids must be corrupted, and secretion perverted, which is the cause of scurvy, piles, ulcers, evil, scorbutic gout, rheumatism, inflammations of the eyes, &c. and lays a foundation of every disease incident to the human body. In such cases these pills prove effectual in their operation, mixing most intimately with the blood; so that if any taint or contagion has infected the juices, this washes it away from the habit and expels the disease by the most gentle evacuations. They remove bilious complaints, promote digestion amazingly, create an appetite, destroy worms, both in the stomach and intestines; and may be taken by the most delicate constitution after the natural small pox, or from inoculation, however judiciously treated gross humours often remain, and dangerous disorders follow. In such cases these pills will be of infinite service,—in short they are of use wherever purging is necessary.

DIRECTIONS FOR USE.

From four to seven years old, one pill, at night after supper; from eight to fourteen, two pills; and grown up persons may take three pills. They may be repeated every fourth night in stubborn cases: such as surfeits, evil, and scorbutic complaints; and one pill must be taken every or every other night till a cure is effected, and less in proportion to the age of the patient. They may be taken at any time of the year, observing to drink nothing cold during the operation.

N. B. One pill in general is sufficient for a person of a delicate constitution, or for any when taken to keep the body moderately open.

DAFFY'S ELIXIR.

(RECIPE, No. 9.)

Take—Jalap, Coriander-seed, and Cream of Tartar, of each two ounces ;
Senna, four ounces ;
Gum Guaiacum, four drachms ;
Proof Spirits of Wine, three quarts ;
Digest for fourteen days, and strain for use.

ANOTHER.

(RECIPE, No. 10.)

Take—Senna, one pound ;
Caraway-seed, bruised, one ounce and a half ;
Small Cardamom-seed, husked and bruised, half an ounce ;

Raisins, stoned, one pound ;
Proof Spirits of Wine, one gallon ;
Digest for fourteen days, and strain for
use.

ANOTHER.

(RECIPE, No. 11.)

Take—Jalap, one pound ;
Senna, half a pound ;
Anniseed, three ounces ;
Coriander-seed, two ounces ;
Orange Peel, one ounce ;
Proof Spirits of Wine, one gallon ;
Powder the Jalap, bruise the Seeds ;
Digest for fourteen days, and strain for
use.

Grown up persons may take from two to three table-spoons full in the morning fasting, and the same in the evening if necessary ; and for children in proportion.

Half a pint of any of the above preparations of Daffy's Elixir may be given for a dose to Horses and Horned Cattle, full grown, which over-purge, or for pain in the bowels, &c. and may be repeated as thought proper.

EXTRACT OF SATURN,
COMMONLY CALLED GOULARD.

(RECIPE, No. 12.)

Take—Litharge of Gold, two pounds;
White Wine Vinegar, four pints;
Put them together into a glazed pipkin, and simmer them over a fire one hour and a half, constantly stirring them with a piece of flat wood; then take the pipkin off the fire, let the whole settle, and pour off the clear into a bottle for use.

Goulard is excellent in many cases; its use will be seen in various parts of this book.

CAMPHORATED SPIRITS OF WINE.

(RECIPE, No. 13.)

Take—Camphor, four ounces;
Rectified Spirits of Wine, one quart;
Mix them so that the Camphor may be dissolved.

DIAPENTE POWDER.

(RECIPE, No. 14.)

Take—Gum Myrrh, Bay Berries, and Round Birthwort Roots, equal quantities, with double the quantity of Ivory Shavings, and reduce them to powder.

This powder (if properly prepared) is a warm alterative, adapted to such disorders as the yellows, and other complaints which arise from a sluggish state of the fluids.

This powder (or one called by the name) may be purchased of some wholesale traders under six-pence per pound, taking fifty-six pounds together; and the articles cannot be purchased in an unpowdered state for double the sum. It is therefore far the best way to purchase good articles and reduce them to powder yourself.

OPODELDOC.

(RECIPE, No. 15.)

Take—Rectified Spirits of Wine, two pints;
Castile Soap, five ounces;

Digest in a gentle heat till the Soap is dissolved ; then add one ounce of Camphor, dissolved in a little Spirits of Wine ;

Oil of Rosemary and Origanum, each half an ounce.

OR,

(RECIPE, No. 16.)

Take—Castile Soap, three ounces ;

Camphor, one ounce ;

Spirits of Rosemary, one pint :

Digest in a gentle heat till the Soap and Camphor are dissolved.

OR,

(RECIPE, No. 17.)

Take—Castile Soap, eight ounces ;

Rain Water, one pint ;

Rectified Spirits of Wine, one pint ;

Spirits of Sal Ammoniac, one pint;
Oil of Origanum, one ounce;
Camphor, one ounce;
Spirits of Turpentine, two drachms;
Cut the Soap into thin slices, and digest
with the Spirits of Wine, and Water,
in a gentle heat, till the Soap is dis-
solved; then dissolve the Camphor, by
rubbing it well in a marble or stone
mortar, with two ounces of Spirits of
Wine. Then mix the whole of the in-
gredients together for use.

The above compositions are discutient
and resolvent from the soap and camphor,
and corroborative from the spirits and es-
sential oils. It is applied to cold swellings,
arising from viscid and concreted hu-
mours, and after the heat and first inflam-
mation are removed, is successfully used in
strains and contusions, in order to restore
strength and due tone to the weak and re-
laxed fibres.

OINTMENT.

(RECIPE, No. 18.)

Take—Linseed Oil, four pints ;

Olive Oil, four pints ;

Armenian Bole, four ounces ;

Yellow Wax, one pound ;

Red Lead, four ounces ;

Reduce the Bole and Lead to very fine powder, and cut the wax into small bits ; then put all the ingredients into an iron pan or pot that will hold at least ten quarts ; set them over a slow fire to simmer, or boil slowly, stirring constantly until it acquires a dusky brown colour ; then add to it ten ounces of Venice Turpentine, and two ounces of Calcined Corkwood, in fine

powder; boil five minutes more, stirring it constantly, and then strain it through flannel for use.

This Ointment is excellent to cure or prevent gangrenes in sheep, whether made by dogs or any other accident; and is particularly useful in the lambing season; and it will be found very useful for cow's udders, teats, &c. Green wounds in sheep of all descriptions must be well dressed, by taking a little of the Ointment in your hand and rubbing it well on the wound, and two inches at least round it on the skin, without pulling the wool off; and if you observe the skin to be hallow, make an incision with a proper knife or lancet, so that the garget water may be let out, then work the ointment in with your hand under the skin as far as possible, and on the outside as above. When hurt by lambing, about two ounces of the Ointment must be conveyed into the matrix or womb.—When cow's udders are sore, let it be well rubbed on the part affected

every third day ; cow's teats when sore, must be well rubbed with it every night after milking.

SYRUP OF BUCKTHORN.

(RECIPE, No. 19.)

Take—The Juice of ripe and fresh Buckthorn Berries, three pounds ;
Ginger and All-spice, of each half an ounce :

Boil them to the consistence of a Syrup, with six pounds of Treacle, the Spice being bruised and tied in a bag.

This Syrup is chiefly used to mix purging balls and pills, and should always be kept ready as the preparation is easy.

TINCTURE OF ASAFÆTIDA.

(RECIPE, No. 20.)

Take—Asafætida, four ounces;
Rectified Spirits of Wine, one quart;
Digest with a gentle heat for ten days,
and strain for use.

TINCTURE OF COLUMBO.

(RECIPE, No. 21.)

Take—Columbo Root, powdered, two ounces
and a half;
Proof Spirits of Wine, one quart;
Digest for eight days, and strain for use.

This is given from one to two drachms
in bilious vomitings and purgings.

TINCTURE OF OPIUM.

(RECIPE, No. 22.)

Take—Hard Purified Opium, two ounces and a half;

Proof Spirits of Wine, two pints;

Digest for ten days, and strain for use.

This Tincture is calculated to subdue violent evacuations.—Its use will be found in several parts of this work.

TINCTURE OF MYRRH.

(RECIPE, No. 23.)

Take—Gum Myrrh, three ounces, bruised;

Proof Spirits of Wine, one pint;

Rectified Spirits of Wine, half a pint;
Digest with a gentle heat for fourteen
days, and strain for use.

TINCTURE OF MYRRH COMPOUND.

(RECIPE, No. 24.)

Take—Gum Myrrh, three ounces, bruised;
Socotrine Aloes, two ounces, powdered;
Saffron, half an ounce;
Proof Spirits of Wine, one quart;
Rectified Spirits of Wine, one pint;
Digest with a gentle heat for fourteen
days, and strain for use.

This Tincture is good for healing all
kinds of green wounds of animals, also
for cuts or wounds on the human body.

TINCTURE OF RHUBARB.

(RECIPE, No. 25.)

Take—Rhubarb, two ounces;
Ginger, two drachms;
Saffron, two drachms;
Liquorice Root, half an ounce;
Small Cardamom-seed, three drachms;
Proof Spirits of Wine, one quart:
Slice the Rhubarb and Liquorice, bruise
the Ginger and Seeds:
Digest for fourteen days, and strain for
use.

The dose for an adult or grown up person is from six drachms to one ounce, and is an excellent medicine against complaints in the stomach and bowels, &c.

TINCTURE OF EUPHORBIIUM.

(RECIPE, No. 26.)

Put in a phial any quantity of Pulverized Euphorbium, and pour upon it Oil of Tartar, *per deliquium*, about four fingers high; stop the phial and place it in a sand heat for three or four days, and it will produce a deep yellow or redish tincture:

Strain, and keep it in a glass bottle for use.

This Tincture is very powerful in cleansing old ulcers, carious bones, and callous lips of wounds. A tent of hurds must be dipped into the Tincture, and the wound dressed once a day, or once in two days as may be required.

TO PREVENT THE SMUT, IN WHEAT.

One pound of Arsenic, finely powdered, boil in three gallons of Rain Water, till dissolved; then add twenty-seven gallons more of water. Put two strike of Wheat into a tub, pour as much of the Arsenic-water upon it as will cover the Wheat, so that it may be well scumed. Let it steep two hours and no longer. Draw the liquor from the corn and sow it immediately, or it may kill the Wheat. Add more Wheat and proceed as above, as long as the Water will swim an egg.

This quantity, if well managed, will do for one quarter of Wheat.

N. B. Be careful to bury all that you scum off.

The above I had from a gentleman farmer in the neighbourhood of Melton Mowbray, that has tried it for several years and has always succeeded. Previous to this, he was at a great expence in preparing a brine with salt, &c. but could not prevent the Smut, and sometimes sustained a loss by the Smut of one hundred pounds per year. In both cases he limed well.

THE END.

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ERRATA.

- In the Section on Worms in Horses, page 65, second paragraph, eleventh line, instead of "when the springs are very high,"—read "when the springs are very low."
- In page 305, second line after the Recipe, instead of "if the bowels are sufficiently open."—read "if the bowels are not sufficiently open."
- In page 310, second line of the Recipe, *dele* balsam.

FINIS.







